PREDICTION OF THE SATURN S-II BASE RADIATION ENVIRONMENT

ENGINEERING REPORT NO. 1469

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GEORGE C. MARSHALL SPACE FLIGHT CENTER

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AUGUST 1967

HAYES
INTERNATIONAL CORPORATION
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By

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1.0 INTRODUCTION

Thermal radiation from rocket exhaust plumes can be a major heating source for the base region of launch vehicles. To provide analytical methods of predicting the radiative flux to this region, the Marshall Space Flight Center has sponsored a series of research studies. This research has led to the development of a method of analysis based on random or statistical band models with a modified Curtiss-Godson approximation for application to inhomogeneous gases (References 1 and 2).

The purpose of this report is to describe the application of the analytical methods to the flux prediction for the S-II stage of the Saturn V launch vehicle. The report concerns itself with three areas of investigation: (1) a method of specifying the gas properties of the exhaust plume for the five-nozzle configuration; (2) a limited investigation of a means of reducing computation time; and (3) the prediction of the radiative flux at selected points in the base region of the S-II stage. The computer program which was developed to numerically evaluate the radiation heat transfer is described in Reference 3.

2.0 EXHAUST PLUME PROPERTIES

In order to specify the exhaust plume properties it is necessary to: (1) define the engine operating conditions, (2) define the portion of the flow field to be treated, and (3) estimate the gas properties. For the S-II stage the operating conditions are easily defined by the trajectory. But the portion of the flow field to be treated is restricted by computer storage limitations, and the estimation of the gas properties is difficult due to the complex flow geometry.

The S-II stage uses five Rocketdyne J-2 engines arranged as shown in Figure 1. These engines use oxygen and hydrogen as propellants, but the propellant mixture ratio and the nozzle stagnation pressure are varied during the flight. The engines are started on a mixture ratio (oxygen/hydrogen) of 5.0 (by weight), but shortly after starting, the ratio is increased to. 5.5. The 5.5 mixture ratio is maintained for the major portion of the flight (approximately 284 seconds), and then the mixture ratio is reduced to 4.7 for the remainder of the flight (approximately 94 seconds). Maximum radiation from the rocket exhaust occurs at the higher mixture ratio, so the operating conditions chosen for this analysis were the 5.5 mixture ratio and the corresponding nozzle stagnation pressure of 715 psia.

The radiation computer program (Reference 3) requires that the flow field be specified for radial planes in a symmetrical sector about an outboard engine as shown by Figures 1 and 2. The outboard engine was chosen as the center of flow field rather than the center engine, since it simplifies the

preparation of the flow field and requires less computer storage for a given amount of information. The radiation computer program obtains property values in the triangular region c-b-d (Figure 2) about the center engine by using a similarly located point in region a-b-d. This method assumes that plane b-d is a plane of symmetry, and although this is not actually true, it is consistent with the flow field approximation which was used. In the process of the radiation calculation, any point in the exhaust plume is referred to a similar point in the symmetrical sector for which the flow field is defined in order to obtain the gas properties.

Before proceeding with a description of the physical limitations imposed on the flow field by storage limitations in the radiation computer program, it is desirable to consider the limitations and approximations involved with the analytical methods used in estimating the exhaust plume gas properties. At the time the exhaust plume prediction was made, two three-dimensional prediction methods were being developed, but due to the early point in their development cycle there was a lack of confidence that the problem could be successfully solved within the desired time period using these methods. Even if a successful prediction could have been made with one of these methods, it would have been necessary to prepare a computer program or subroutine to interpolate in the output to obtain the proper input form for the radiation program.

Because of the uncertainty and possibility of delay, it was decided to make an approximation using the axisymmetric method of characteristics program

described in Reference 4. This program was familiar and had been used successfully many times to prepare input data from axisymmetric plumes for the radiation programs. It allows the use of equillibrium gas properties during expansion and includes a subroutine which will interpolate in the characteristic net to provide gas properties (temperature, pressure, and gas species mole fractions) as a function of radius at specified axial locations.

The axisymmetric program was used to approximate the three-dimensional flow field by making a separate run at each of the η-planes shown in Figure 2. On each run, the plume was expanded from the nozzle exit then turned through an oblique shock into a cylinder with a radius equal to the distance between the engine center line and the impingement plane between engines. Since the pressure ratios at which the S-II engines operate produce detached or normal shocks between plumes, it was necessary to arbitrarily reduce the plume expansion angle until the expanded flow could be turned into the cylinder by an attached oblique shock. To do this, the plume boundary between the nozzle exit and the cylinder was approximated by a cone, and various cone angles were tried until it was determined that a cone angle of 45^{o} was the maximum angle for which the flow could be turned successfully at all cylinder radii.

The resulting flow geometry and isothermal contours are shown in Figure 3 for several representative η-planes, and in Figure 4 for the free-plume boundary which does not intersect an impingement plane. A combination of the predictions is made in Figure 5 to illustrate the variation of temperatures in a cross-section thru the plume.

Although it is not possible to make a quantitative assessment of the accuracy of the flow field approximation, the expected effects are to reduce the temperature in regions near the base and increase the temperature in downstream regions. Effects on the free plume illustrated by Figure 4 are negligible from a radiation standpoint.

The reduced plume impingement angle resulting from the use of the 45° conical transition will not only reduce the physical size of the initial impingement region, but it will also reduce the temperature in the initial impingement. This effect could be quite important for proximate surfaces such as the nozzle exit surfaces, but it would not be as important for more distant surfaces such as the heat shield. An offsetting effect occurs due to the lack of three-dimensional relief as the gas moves downstream. This will cause the gas in the impingement regions to stay at a higher temperature than should actually exist and will result in an increase in plume radiance.

The allowable length of the predicted flow field was limited to 300 inches primarily because of computer storage limitations which will be discussed later. However, while discussing the effects of the flow-field approximation, it is desirable to comment on the flow field aspects affecting the length considerations. The shock positions at various η-planes shown by Figure 6 indicate that at all planes up to $\eta = 35^{\circ}$ the shock intercepts the plume center line at less than 300 inches from the nozzle exit. When this occurs in an axisymmetric plume, a Mach disk and shock reflection occurs, and estimates of the flow downstream of this point can be made. But in a three-dimensional

flow field, an axisymmetric type of reflection would not be even a reasonable approximation except on the center engine. This is best illustrated by referring to Figure 5. The shocks converge symmetrically on the centerline of the center engine; but on the outboard engine, the shock approaches the centerline from one side only. By the time the shock reaches the engine centerline, the validity of the approximation is very doubtful, so it was not considered worthwhile to complicate the radiation program geometry by trying to make further estimates of shock shape which would be different for the center and outboard engines. Therefore, the region between the centerline and the position at which the last left running characteristic crossed the 300-inch plane was assumed to be isothermal at the Z = 300 inch, $\eta = 0^{\circ}$ position. The results of this assumption are difficult to illustrate, but the effect may be noted at the 300-inch position in the folow field tabulation presented in the Appendix.

If the flow field had been extended beyond 300 inches, the uncertainty caused by the flow field assumptions would become quite large. Since, as mentioned previously, the basic approximation made should give higher temperatures in the downstream regions, it was considered that this would offset the effects terminating the flow field at 300 inches.

To summarize, the flow field approximation is expected to give lower than desired estimates of temperature in the very beginning of the impingement regions, but it is expected to predict higher temperatures in the downstream portions of the impingement regions. As a result, the radiant heat flux integrated over the entire plume is expected to be a reasonable estimate. Now that

the plume analysis has been reviewed, the description of the radiation program considerations will be completed.

The radiation computer program uses linear interpolation to obtain exhaust plume properties from a table of properties defined as a function of (Z, η, R) as shown by Figure 1. Due to computer storage limitations, the allowable dimensions of this property table were limited to (10, 13, 30). The distribution of the storage between the three dimensions was necessarily somewhat arbitrary but was governed by the following considerations:

1) The properties were expected to vary more rapidly in the radial than in the axial direction.

2) Although there are no circumferential property variations upstream of the shock caused by the plume impingement, sufficient η-planes need to be provided to try to accurately define the shock shape. This was important since most of the radiation was expected to come from the flow downstream of the impingement shock.

Although the radial positions used throughout the flow field can be varied to best describe the particular flow field conditions, the η and Z positions used must be limited to specific locations to simplify flow field predictions and satisfy requirements of the radiation program. The maximum number of η values used is shown in Figure 2, but some of these could be omitted for convenience where they were not required (i.e., at $Z = 0$ the plume is axisymmetric so no η dependency exists). These η positions were chosen to provide the best definition of the inner impingement regions which start relatively close to the nozzle exit and expand to significant dimensions as the flow moves

downstream. Similarly, the Z positions were chosen close together initially to define the inner impingement regions (values of Z were 0, 20, 30, 40, 60, 80, 120, 160, 200, and 300 inches). In obtaining a more precise definition of the plume close to the nozzle exit plane, the precision of the downstream definition was sacraficed. However, this is consistent with the probable decrease in accuracy of the flow field approximation downstream of the nozzle.

3.0 COMPUTER PROGRAM

A detailed description of the radiation computer program is given in Reference 3, but it will be described briefly here to provide a background for the results to be presented. In addition to the program outline, descriptions will be presented in this section of the occlusions used in the analysis, and the parametric studies made in selecting integration intervals to reduce computer time.

3.1 PROGRAM DESCRIPTION

The computer program is divided into two subroutines. The first subroutine reads in the flow field listed in Appendix A and prepares a magnetic tape of the gas properties (temperature, pressure, and mole fraction) along each line of sight which passes through the flow field. Lines of sight are specified along radial lines in a spherical coordinate system about a point at which the radiative flux is desired (point of interest). In this coordinate system, S is the distance along the line of sight (or radius vector), θ is the angle between the line of sight and the surface normal, and ϕ is the angle defining the position of the projection of the line of sight in the plane of the point of interest.

The second subroutine takes each line of sight and computes the radiative flux using the summation

$$\overset{\circ}{Q}/A = \sum_{\theta_i}^{\theta_f} \sum_{\phi_i}^{\phi_f} \sum_{\upsilon_i}^{\upsilon_f} \sum_{o}^{s_f} - \overset{\circ}{B}_{\upsilon} \left[\overline{G}(s,\upsilon) - \overline{G}(s-\Delta s,\upsilon) \right] \sin\theta \cos\theta \, \Delta\theta \, \Delta\phi \, \Delta\upsilon \quad (1)$$

where B°_{υ} is the black body spectral radiance evaluated at the center of each wave number interval, $\Delta\upsilon$, and $\overline{G}$ is the average transmissivity.

The average transmissivity is computed using a statistical or random band model with a modified Curtiss-Godson approximation to account for the inhomogeneous gas properties. This method is described in Reference 1 as Model 3a, but the line density and absorption coefficients are obtained from Reference 2. Absorption coefficients for water vapor are available over a wavenumber range of 50 to 11000 cm^{-1} with a spacing of $\Delta\upsilon = 25\ cm^{-1}$.

3.2 BLOCKING CIRCLE CONFIGURATION

The occlusion of lines of sight by parts of the S-II stage is provided for in the radiation program by the use of "blocking circles" which can be located to simulate the vehicle structure. The blocking circles are in planes parallel to the X-Y plane, and each is located by the coordinates of the center and the radius. In addition to location, each circle is identified as a disk or a hole. Whenever a line of sight passes through a disk, or outside of a hole, the line of sight is terminated at the plane of the circle.

The occlusions for the S-II stage are described by thirty-six blocking circles as shown in Table 1. Here it is seen that type O specifies a disk and type 1, a hole. Thirty of these blocking circles are used to describe the engine nozzles (six for each nozzle) and are designated as disks. The vehicle skirt is described by one blocking circle which is designated as a hole.

The heat shield is non-circular and as a consequence, is simulated by a configuration of five disks as indicated by the typical quadrant shown in

Figure 7. Here the heat shield is considered to be a disk with a radius of 105 inches, and the peripheral irregularities are simulated by circles of equal area. It is noted that the 105-inch radius blocking circle intersects the five engine nozzles. Since the nozzles are also occluded by disk type blocking circles, no error is introduced by the intersection.

3.3 STUDY OF COMPUTER TIME

In using the exhaust gas radiation computer program for a single line of sight, the computation time is very short. However, when integration over many lines of sight is required, the computation time may be several hours, so a brief evaluation was made of several variables to determine the effect on computation time and accuracy. The variables considered were the geometric step size, the wave number interval, and the minimum absorption coefficient to be considered.

In order to evaluate the effect of these variables, a typical line of sight was chosen for testing. The location of this line of sight is shown by Figure 6. It passes through a plume impingement zone and has temperature and accumulated flux distributions as shown by Figure 8. The minor temperature fluctuations evident along this line of sight are typical of fluctuations caused by the linear interpolation methods used by the radiation computer program for gas properties.

In selecting the geometric limits of S, ϕ, and θ, each limit must be chosen large enough to encompass the entire input flow field, so the problem in selecting the geometry is essentially one of selecting the desired intervals. It is difficult to find a criteria for specifying the optimum angular increments.

$\Delta\phi$ and $\Delta\theta$, so they were selected as 3 degrees. This provided reasonable resolution and any increment significantly smaller would have produced unreasonable computation times. In contrast, the interval along the line of sight, ΔS, can be varied using a temperature criteria.

The computer program applies a temperature criteria to the increment length along a line of sight by first preparing the properties along a line of sight using a relatively small step size to define the high temperature impingement regions. The properties at each interval are then summed until the temperature change is equal to an input change, ΔT. When this occurs, the properties are averaged, and a term in the summation of Equation 1 is computed. Due to the rapid change of temperature in the plume impingement regions, a ΔS of three inches was chosen for calculating the gas properties. For this basic step size, the effect on computer time, τ, and predicted flux, F, of using temperature increments up to $\Delta T = 200^{\circ}$ R is shown by Figure 9. Because of the significant reduction in computer time with only a minor loss of accuracy, the 200° R temperature increment was selected for all radiation calculations.

An equally effective method of reducing computer time was found in increasing the wave number interval ($\Delta\upsilon$) used in Equation 1. The radiation computer program requires that the wave number interval be a multiple of the 25 cm^{-1} interval used in the water vapor absorption coefficient table. For a given problem, the computation time will be approximately inversely proportional to the wave number interval used. This is shown by Figure 10 for wave number intervals of 50 and 100 cm^{-1}. Since a significant saving in

computer time occurred with negligible loss in accuracy using $\Delta\upsilon = 100\ cm^{-1}$, this interval was selected for the S-II radiation estimates.

Another time-saving variation which was allowed for in the radiation program was a minimum absorption coefficient test. In this option any spectral interval for which the absorption coefficient is below a specified minimum (H_{min}) is neglected. Although this can reduce the computation time, the method in which it was programmed did not allow for maximum effectiveness. The program does not provide any weighting for the absorption coefficient test as a function of the pressure and temperature in the gas. Because of this, significant radiation from a hot, dense region may be neglected due to the absorption coefficient being too low.

The results of the test cases with minimum absorption coefficient (H_{min}) values of 10^{-3} and 10^{-2} are presented in Figure 11. Since the time-saving resulting from this option is not great and the results are likely to be of unpredictable accuracy, this option was not used in the S-II radiation prediction.

4.0 RESULTS

Radiation calculations were performed for eight points of interest (POI) in the base region of the S-II stage. These points, shown in Figure 12, represent regions where the maximum radiation heating was anticipated on the heat shield, engine nozzle, thrust cone, and interstage. In addition, the points selected on the heat shield correspond to positions selected for flight measurements with radiation calorimeters.

The radiation calculations were carried out using geometric integration limits which would include the entire exhaust plume approximation described in Section 2. The wave number range used corresponded to the range of available water vapor absorption coefficients, i.e., 50 to 11000 cm^{-1} (this corresponds to wavelength range of 0.91 to 200 microns).

The results of the radiation predictions are presented in Table 2 with a comparison of previous estimates using a less exact method. Results of the two methods agree surprisingly well, and the heat shield flux is close to the rough estimate of 1.14 watts/cm^2 (for an engine mixture ratio of 5) which was made before any detailed calculations were carried out (Reference 6). However, the reasonable agreement between the various methods should be considered coincidental.

The computer time (IBM 7094) required initially to generate the flow field was approximately 5 hours and the time required for radiation estimates was a maximum of about 2 hours per point. The radiation calculation time varied greatly in proportion to the number of lines of sight which hit the exhaust

plume and the temperature variations along the line of sight. The time required to perform the flow field interpolation was typically about 10 minutes per point, so the major portion of the run time was required for the detailed radiation calculations.

It should be possible in future estimates to reduce the computer time by deleting a large portion of the short wavelength spectrum (i. e., υ = 6000 to 11000 cm^{-1}), but at the time these estimates were made, this method was not used due to lack of sufficient previous experience. In more recent estimates for a line of sight across a J-2 engine plume near the nozzle exit, it was found that 97 percent of the radiant flux from water vapor in the plume lies between wavenumbers of 100 and 6000 cm^{-1} (wavelengths of 1.67 to 100 microns).

5.0 CONCLUSIONS

This was the first application of the band-model radiation calculation procedure to the prediction of radiant flux from the three-dimensional exhaust plume of a cluster of rocket engines. Although the prediction of the exhaust plume properties involved simplifying approximations, it is believed that similar applications to upper stages are feasible and will provide reasonably accurate estimates. However, a similar application to a plume containing carbon particles or to a plume at low altitude with afterburning would be considerably more difficult and the results much less certain due to the unresolved problems in gas property predictions. It is apparent that the accuracy and feasibility of exhaust plume radiation predictions is now dependent mainly on the availability of satisfactory exhaust plume property prediction methods.

The analytical radiation prediction methods are reasonably well defined at the present time, although it is anticipated that the water vapor band-model parameters will be refined as more experimental data become available. Further refinements are also planned for future radiation computer programs based on the experience gained in this application. These modifications will be planned to improve input/output flexibility and reduce running time.

6.0 REFERENCES

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2. "Study of Exhaust Plume Radiation Predictions – Final Report," Contract NAS8-11363, General Dynamics, Convair Division, GD/C-DBE-66-017, December 1966.

3. Delwadia, M., Reardon, J., and White, S., "A Three-Dimensional Radiation Program for the Saturn S-II Stage," Hayes International Corporation, Engineering Report No. 1470, Contract NAS8-21028, August 1967.

4. Prozan, R., "Development of a Method of Characteristics Solution for Supersonic Flow of an Ideal Frozen or Equilibrium Reacting Gas Mixture," Technical Note LMSC/HREL A782536, Lockheed Missile and Space Company, April 1966.

5. "Radiation Figures for Inclusion in S-II Final Base Region Thermal Environment," NAA Internal Letter S-II-S&ID 65-658 Addendum I, August 1966.

6. Reardon, J. E., "Saturn S-II Stage Base Region Thermal Design Criteria," MSFC Internal Memo M-AERO-A-88-63, August 1963.

TABLE 1. BLOCKING CIRCLE GEOMETRY

X	Y	Z	R	TYPE
0.0000	0.0000	0.0000	40.0000	0
105.0000	0.0000	0.0000	40.0000	0
-105.0000	0.0000	0.0000	40.0000	0
0.0000	105.0000	0.0000	40.0000	0
0.0000	-105.0000	0.0000	40.0000	0
0.0000	0.0000	-35.7200	32.2000	0
105.0000	0.0000	-35.7200	32.2000	0
-105.0000	0.0000	-35.7200	32.2000	0
0.0000	105.0000	-35.7200	32.2000	0
0.0000	-105.0000	-35.7200	32.2000	0
0.0000	0.0000	-40.7200	30.4000	0
105.0000	0.0000	-40.7200	30.4000	0
105.0000	0.0000	-40.7200	30.4000	0
-105.0000	0.0000	-40.7200	30.4000	0
0.0000	105.0000	-40.7200	30.4000	0
0.0000	-105.0000	-40.7200	30.4000	0
0.0000	0.0000	-49.3000	28.1000	0
105.0000	0.0000	-49.3000	28.1000	0
-105.0000	0.0000	-49.3000	28.1000	0
0.0000	105.0000	-49.3000	28.1000	0
0.0000	-105.0000	-49.3000	28.1000	0
0.0000	0.0000	-55.9000	28.2000	0
105.0000	0.0000	-55.9000	28.2000	0
-105.0000	0.0000	-55.9000	28.2000	0
0.0000	105.0000	-55.9000	28.2000	0
0.0000	-105.0000	-55.9000	28.2000	0
0.0000	0.0000	-62.3000	21.0000	0
105.0000	0.0000	-62.3000	21.0000	0
-105.0000	0.0000	-62.3000	21.0000	0
0.0000	105.0000	-62.3000	21.0000	0
0.0000	-105.0000	-62.3000	21.0000	0
0.0000	0.0000	-62.0000	105.0000	0
68.6000	68.6000	-62.0000	33.5000	0
-68.6000	68.6000	-62.0000	33.5000	0
-68.6000	-68.6000	-62.0000	33.5000	0
68.6000	-68.6000	-62.0000	33.5000	0
0.0000	0.0000	-16.0000	198.0000	1

TABLE 2. POINT OF INTEREST PARAMETERS

POI	X	Y	Z	RADIATIVE FLUX WATTS/CM^2	
	In.	In.	In.	REF. 5	PRESENT WORK
HS-1	52.5	0	-60	0.90	1.11
HS-2	70.711	-70.711	-60	1.18	1.14
NE-1	66.6	0	0	4.20	4.41
NE-2	66.6	0	0	2.04	2.58
TS-1 *	140.0	-140.0	-212	0.17	0.15
TS-2 *	124.5	-124.5	-212	0.07	0.05
IS-1	140.0	-140.0	-16	0.73	0.79
IS-2	140.0	-140.0	-16	1.25	1.11

POI Point of Interest

HS Heat Shield

NE Nozzle Exit

TS Thrust Structure

IS Interstage

* The blocking circle corresponding to the interstage skirt was not used for these points.

NOTE: ALL DIMENSIONS ARE IN INCHES

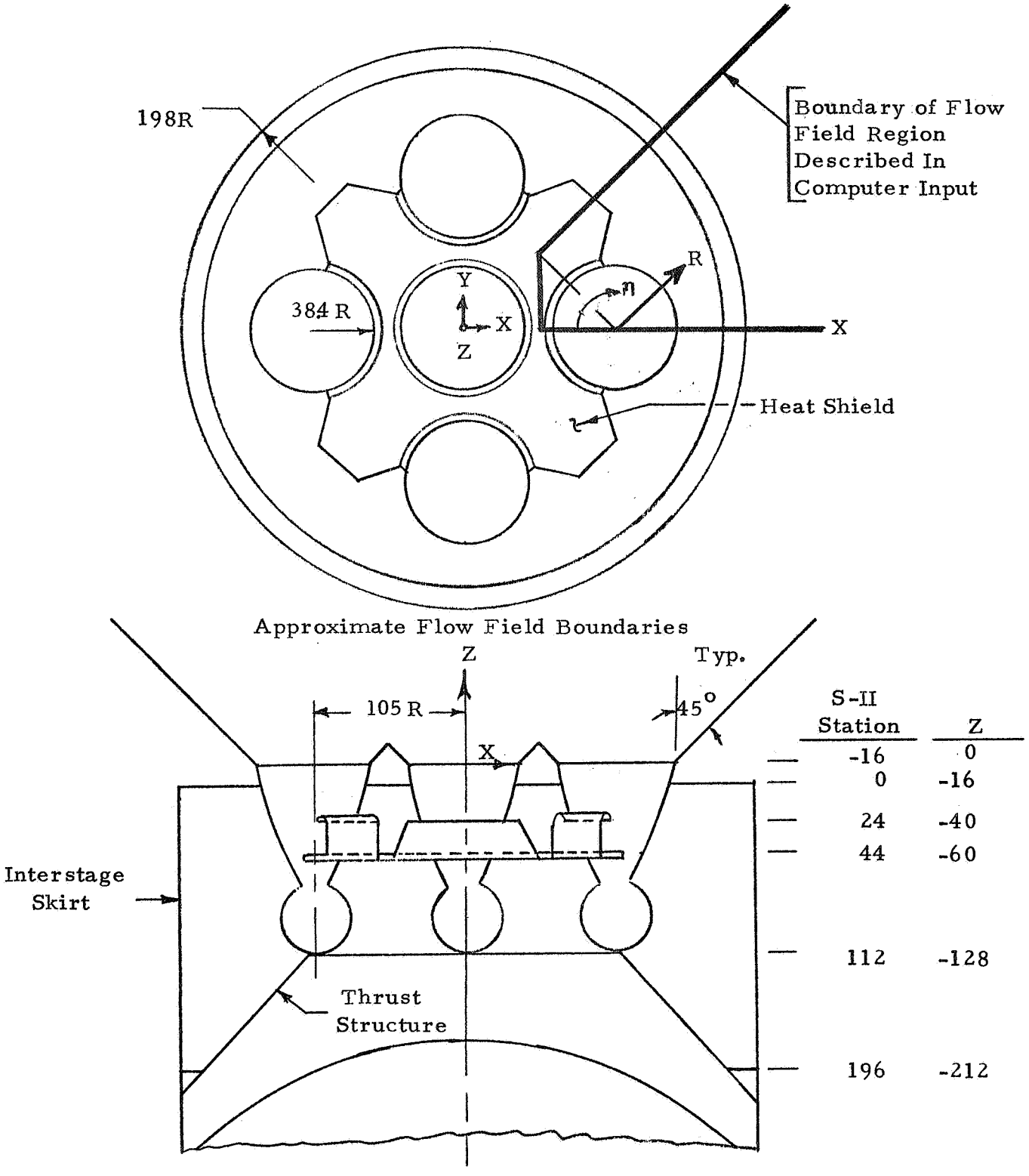

FIGURE 1. SATURN S-II BASE CONFIGURATION AND RADIATION PROGRAM GEOMETRY

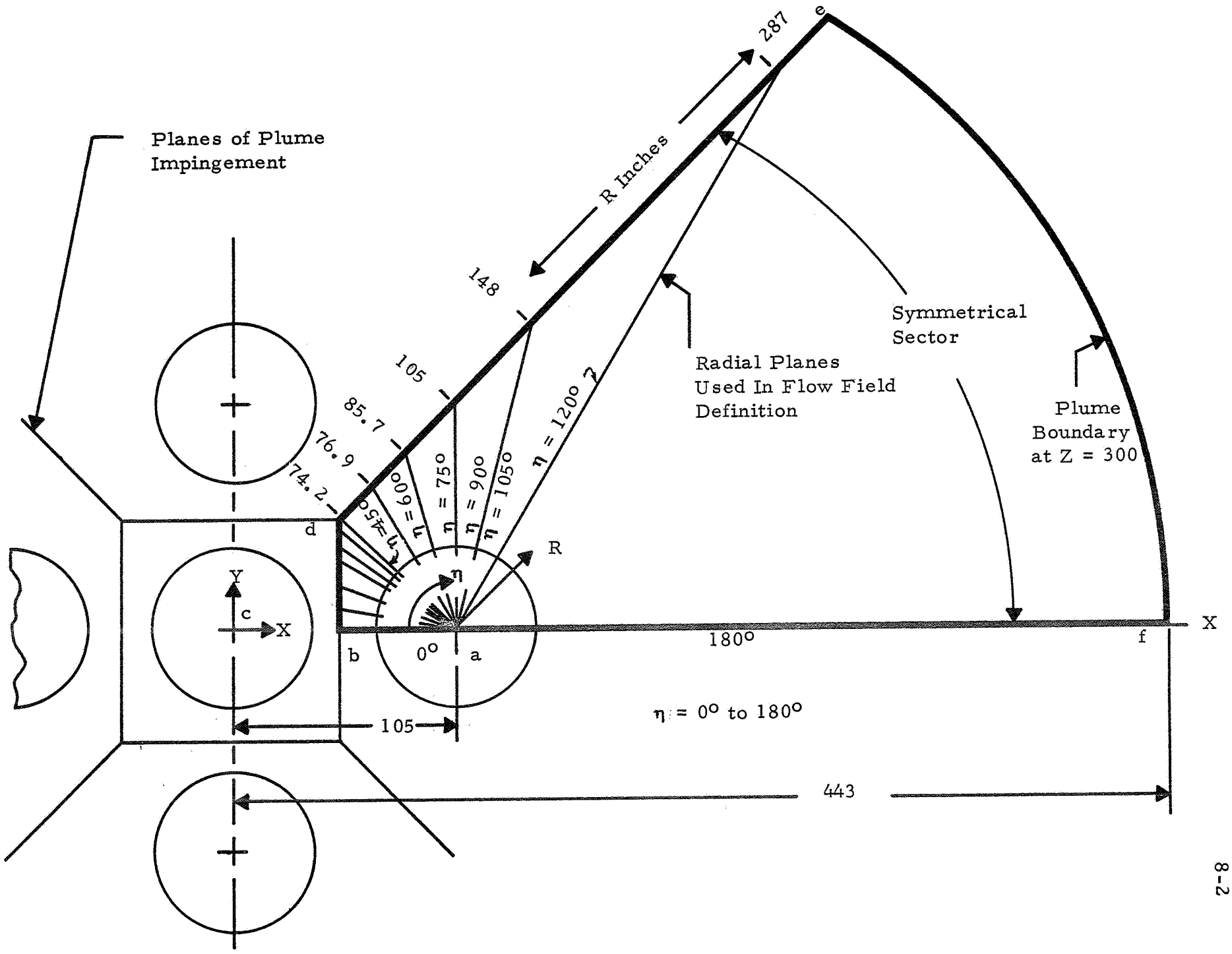

FIGURE 2. FLOW FIELD GEOMETRY FOR S-II RADIATION PREDICTION

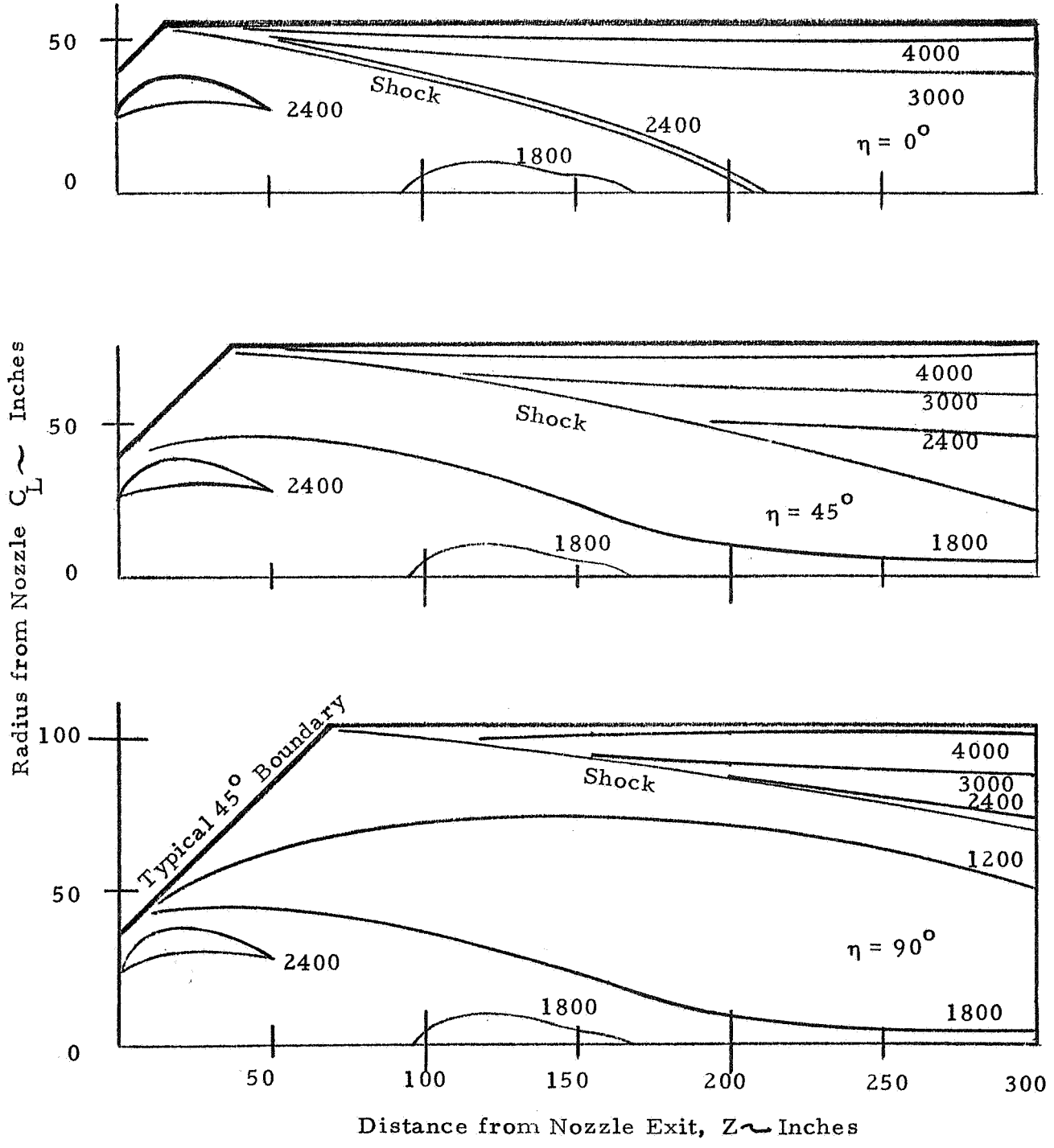

FIGURE 3 . TYPICAL PLUME TEMPERATURES FOR THE S-II FLOW FIELD APPROXIMATION

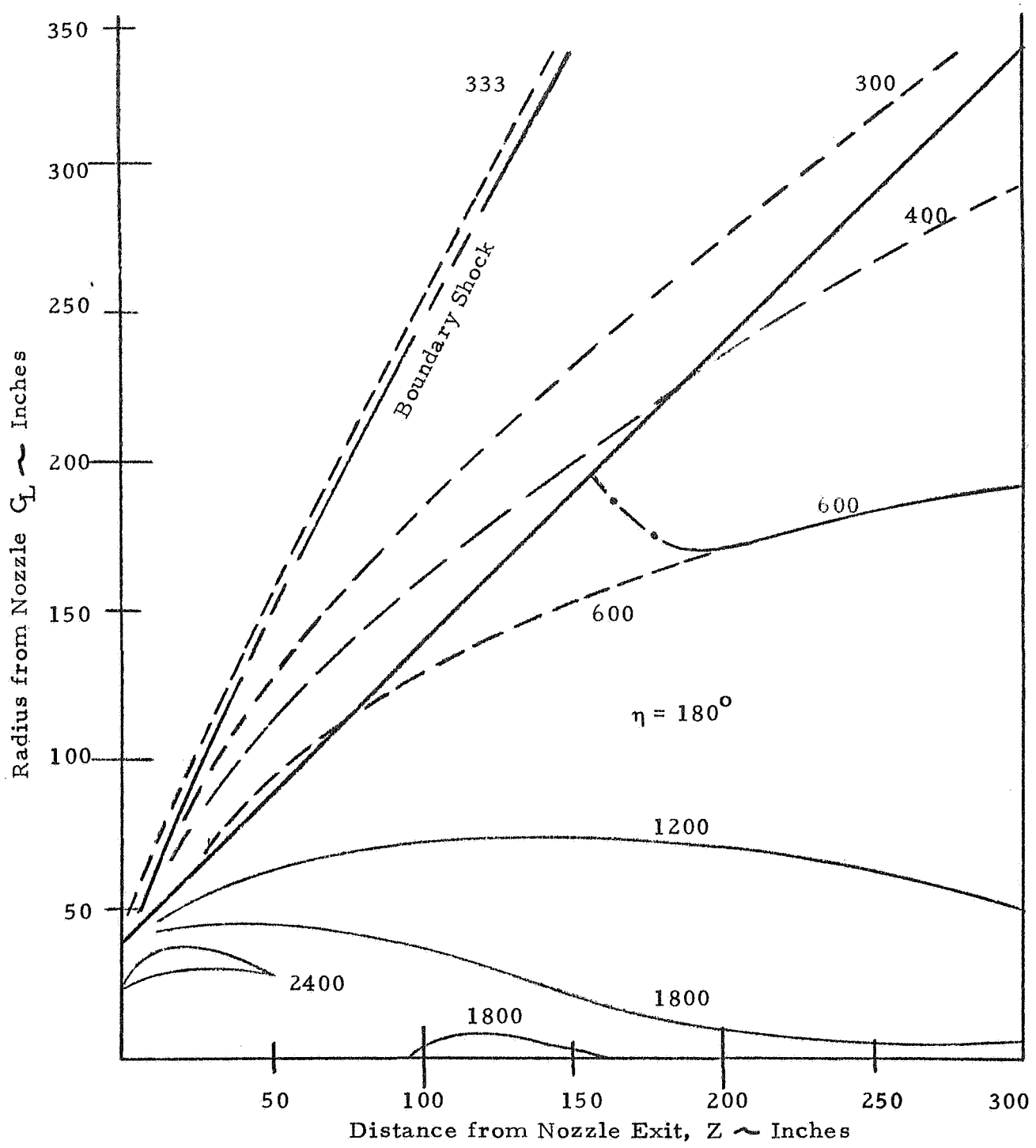

FIGURE 4 . COMPARISON OF FREE PLUME TEMPERATURES TO THE S-II FLOW FIELD APPROXIMATION

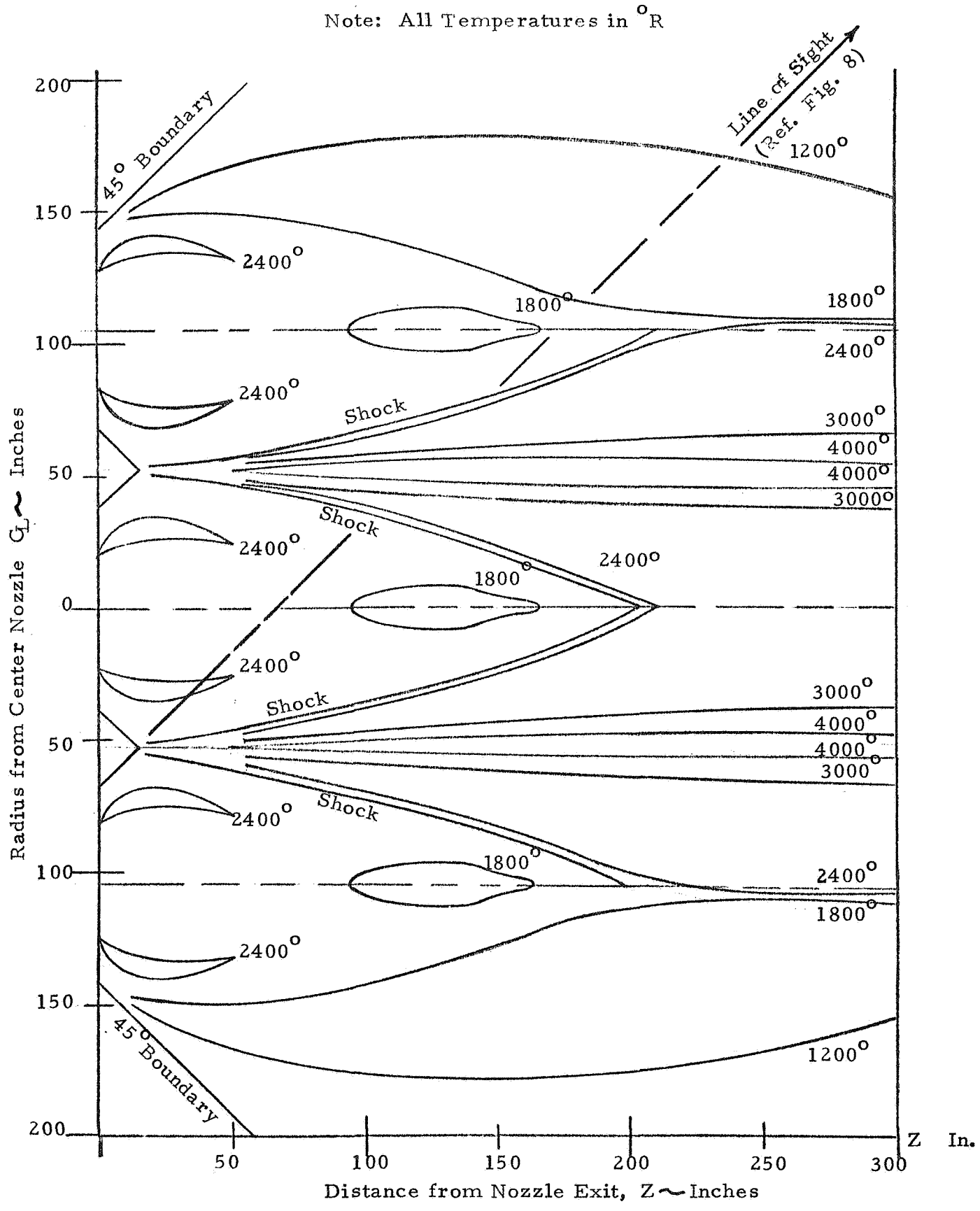

FIGURE 5 . ISOTHERMAL CONTOURS FOR THE X-Z PLANE OF THE S-II FLOW FIELD APPROXIMATION

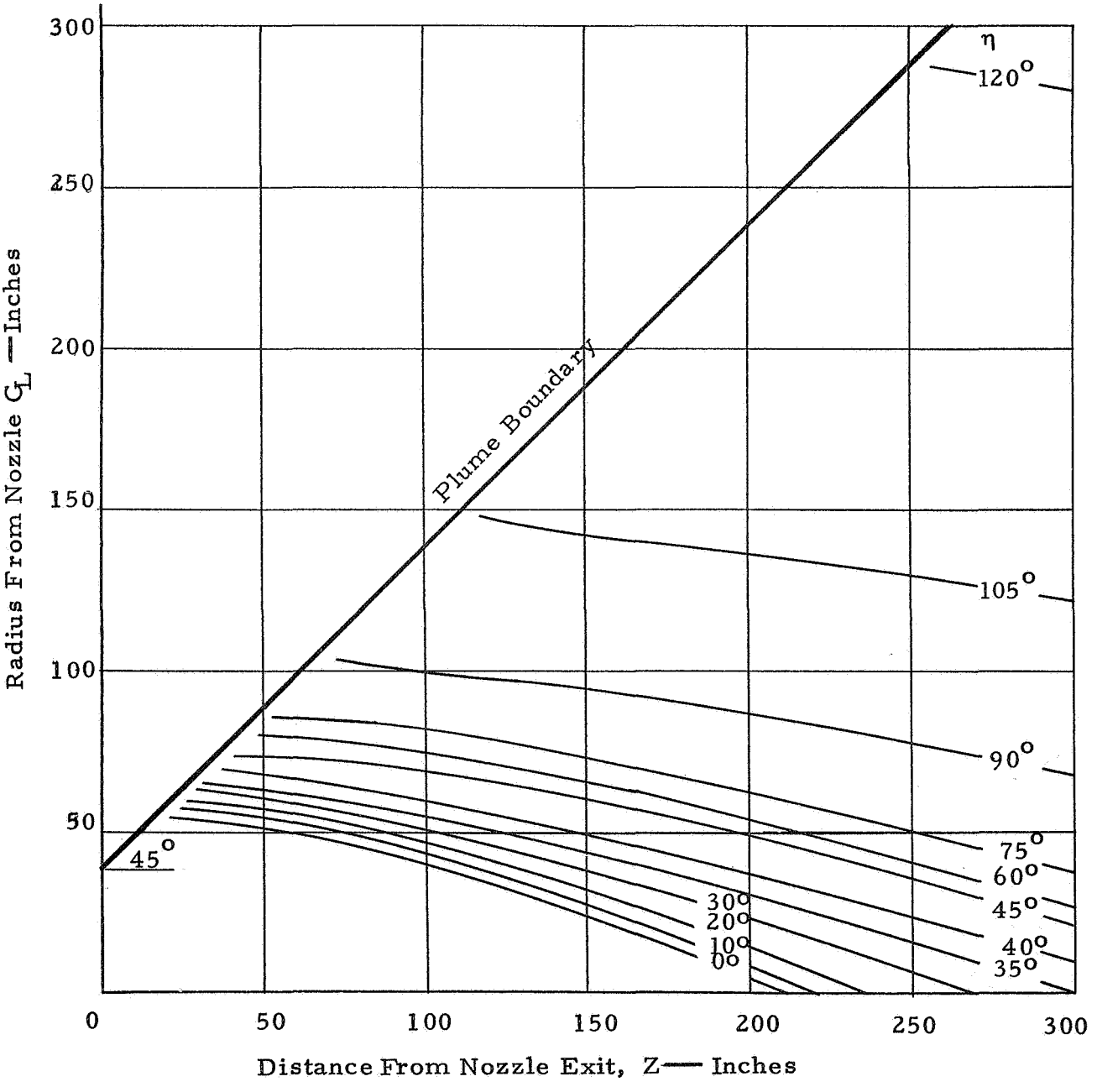

FIGURE 6. SHOCK POSITION FOR THE S-II FLOW FIELD APPROXIMATION

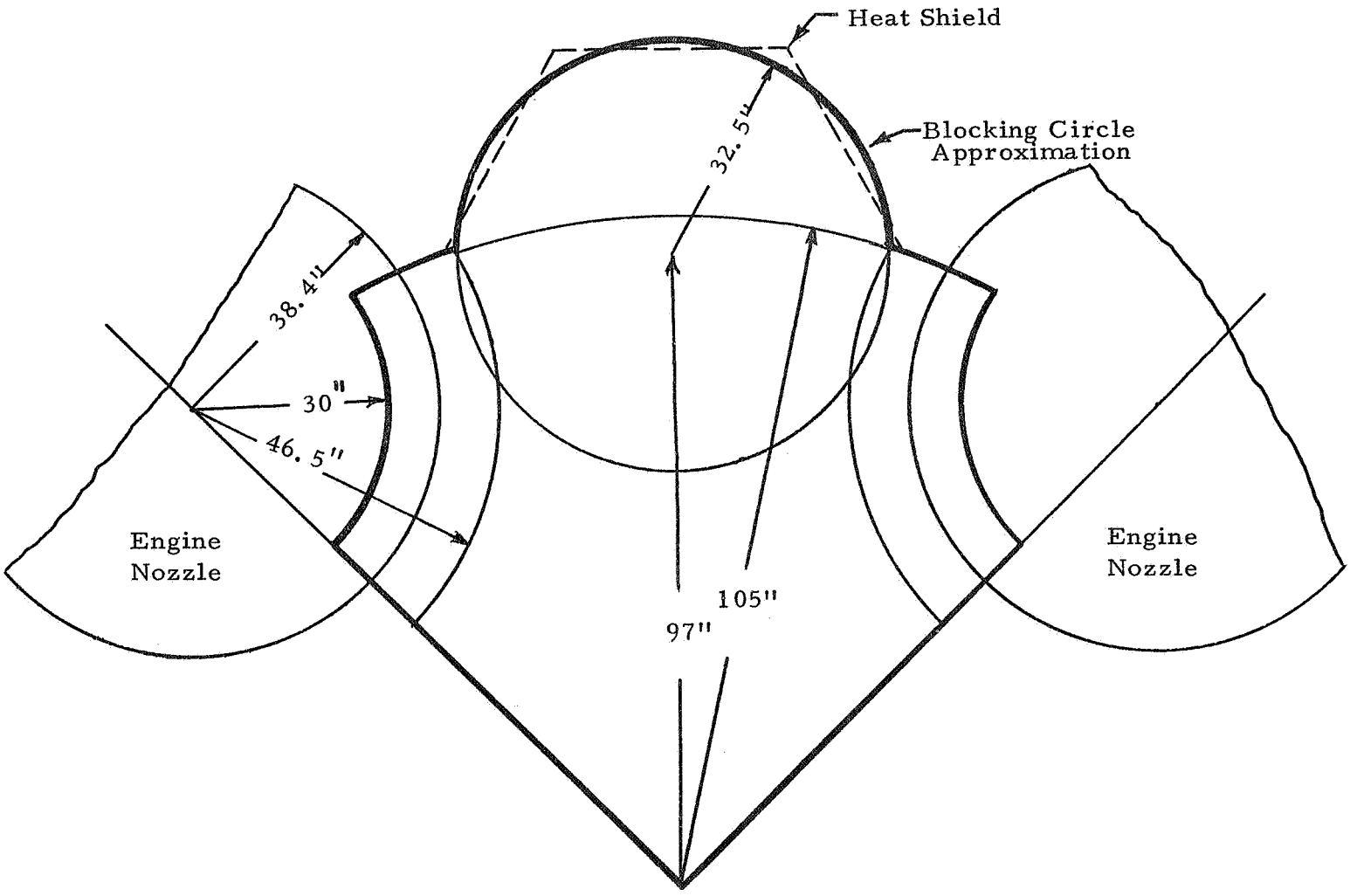

FIGURE 7. HEAT SHIELD BLOCKING CIRCLE APPROXIMATION (SYMMETRICAL QUADRANT)

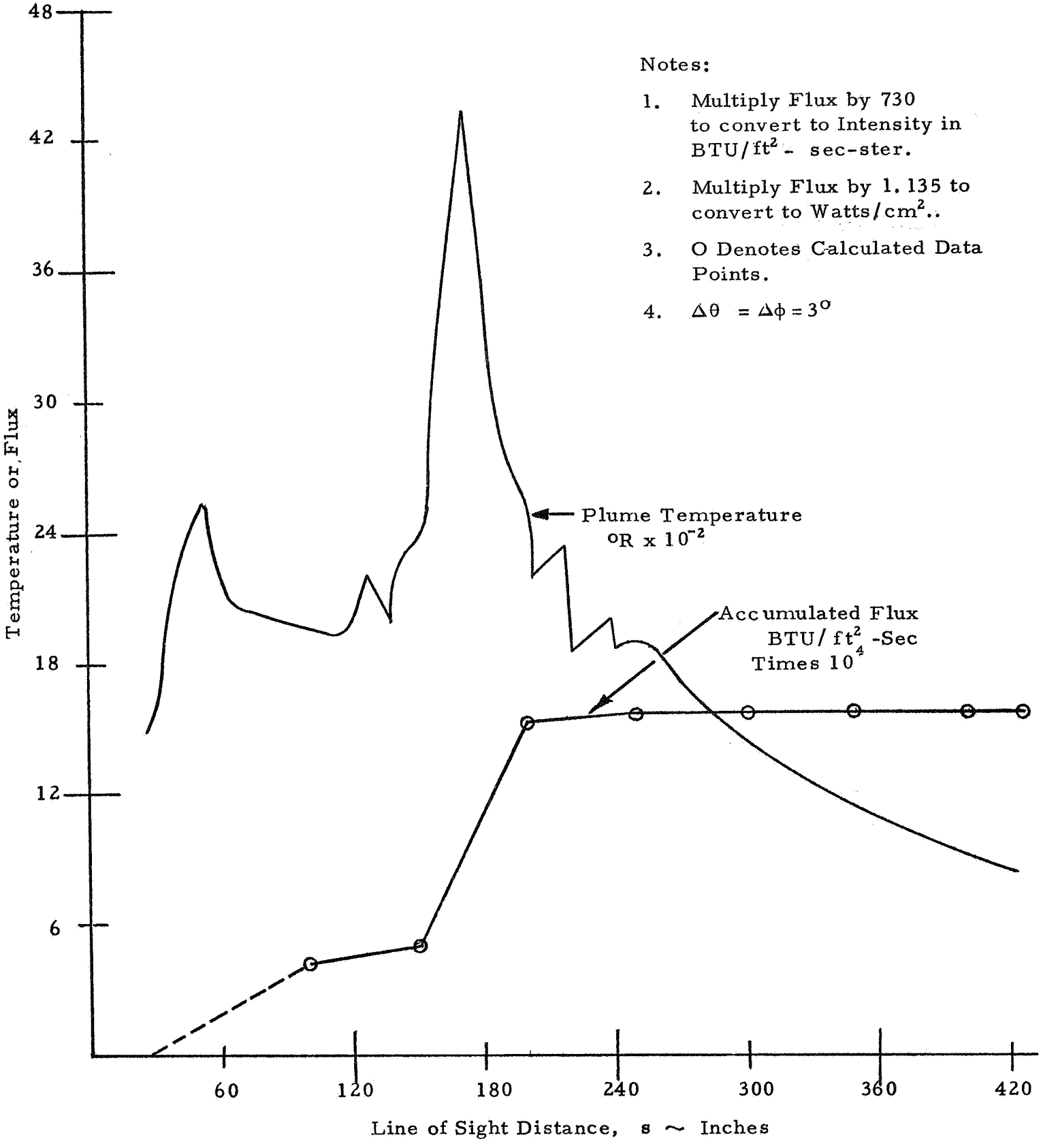

FIGURE 8. COMPARISON OF ACCUMULATED FLUX AND TEMPERATURE PROFILE ALONG A SELECTED LINE OF SIGHT

τ_r = computer run time based on the reference conditions, $\Delta\upsilon = 25$, $\Delta T = 0.0$, and $\Delta s = 3$.
F_r = computed flux for reference conditions

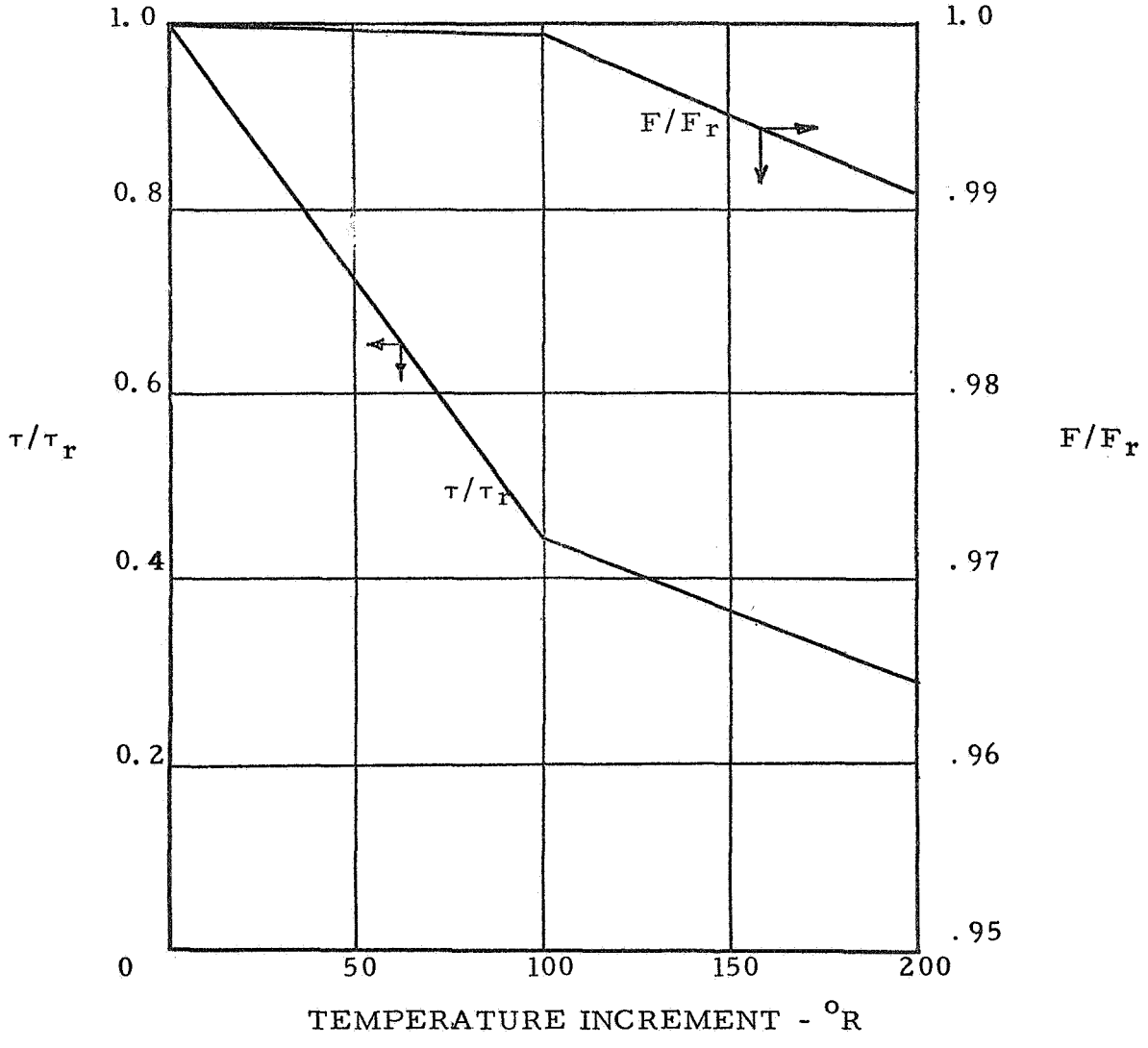

FIGURE 9. EFFECT OF VARYING TEMPERATURE STEP INCREMENT ON COMPUTER RUNNING TIME AND CALCULATION ACCURACY

τ_r =computer run time based on the reference conditions, H_{min} = 0.000, $\Delta\upsilon$ = 25, ΔT = 0.0, and ΔS = 3 inches.
F_r = computed flux for reference conditions

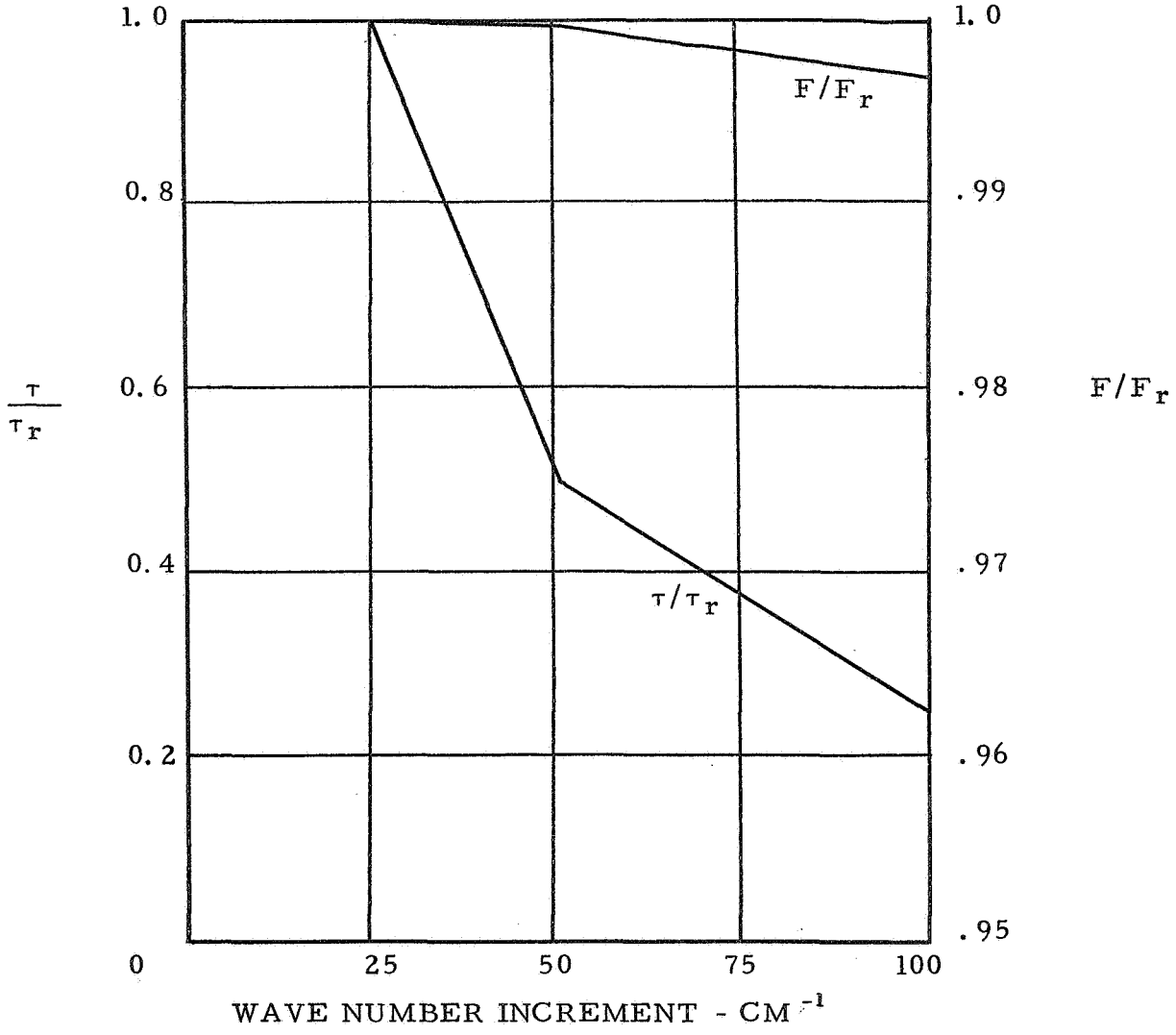

FIGURE 10. EFFECT OF VARYING WAVE NUMBER ON COMPUTER RUNNING TIME AND CALCULATION ACCURACY

τ_r =computer run time based on the reference conditions, H_{min} = 0.000, $\Delta\upsilon$ = 25, and ΔT = 0.0

F_r =computed flux for reference conditions

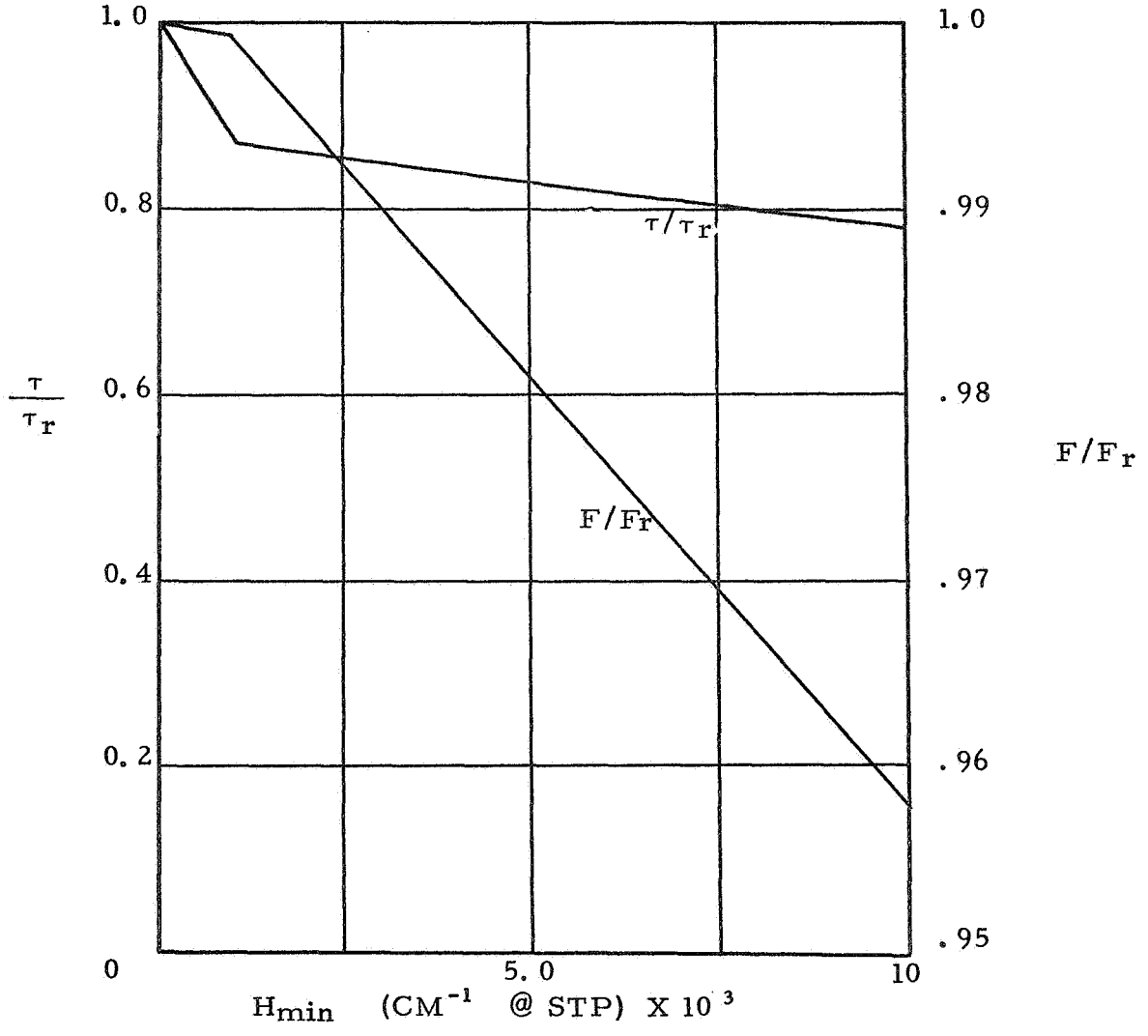

FIGURE 11. EFFECT OF VARYING H_{min} ON COMPUTER RUNNING TIME AND CALCULATION ACCURACY

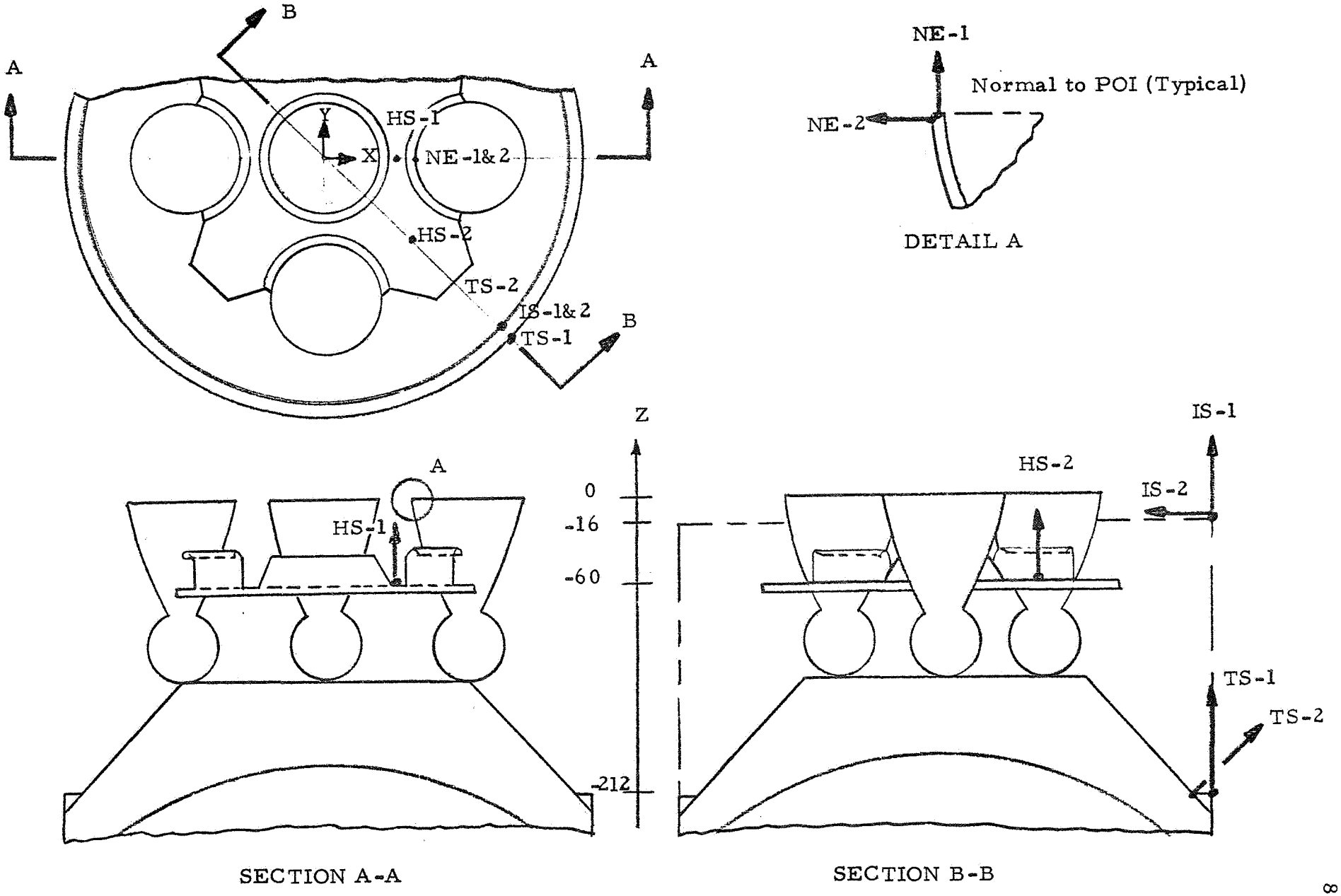

FIGURE 12 LOCATION OF POINTS OF INTEREST

APPENDIX A

S-II STAGE FLOW FIELD APPROXIMATION

EXPANSION ANGLE AT EXIT IS 45 DEG

O2/H2,O/F=5.5,PC=715PSIA

Z= 0.0 NET= 4
NOPS= 28 ETA= 0.0

R	T	P	F
0.0	2343.0	224.0	0.6930
10.0	2343.0	224.0	0.6930
12.0	2345.0	225.0	0.6930
13.8	2347.0	226.0	0.6930
15.8	2351.0	228.0	0.6930
17.5	2360.0	232.0	0.6930
19.5	2368.0	236.0	0.6930
21.0	2379.0	241.0	0.6930
22.5	2391.0	247.0	0.6930
24.0	2406.0	255.0	0.6930
25.7	2427.0	266.0	0.6930
26.9	2449.0	278.0	0.6930
28.5	2489.0	301.0	0.6930
29.9	2529.0	325.0	0.6930
31.0	2570.0	352.0	0.6930
32.2	2619.0	388.0	0.6930
33.4	2680.0	434.0	0.6930
34.2	2716.0	470.0	0.6930
35.0	2764.0	514.0	0.6930
35.9	2822.0	574.0	0.6930
36.5	2867.0	623.0	0.6930
37.0	2906.0	668.0	0.6930
37.4	2939.0	709.0	0.6930
37.8	2980.0	756.0	0.6930
38.0	2997.0	785.0	0.6930
38.2	3018.0	814.0	0.6930
38.3	3024.0	822.0	0.6930
38.4	3034.0	837.0	0.6930
	NOPS= 28	ETA= 60.0	
0.0	2343.0	224.0	0.6930
10.0	2343.0	224.0	0.6930
12.0	2345.0	225.0	0.6930
13.8	2347.0	226.0	0.6930
15.8	2351.0	228.0	0.6930
17.5	2360.0	232.0	0.6930
19.5	2368.0	236.0	0.6930
21.0	2379.0	241.0	0.6930
22.5	2391.0	247.0	0.6930
24.0	2406.0	255.0	0.6930
25.7	2427.0	266.0	0.6930
26.9	2449.0	278.0	0.6930
28.5	2489.0	301.0	0.6930
29.9	2529.0	325.0	0.6930
31.0	2570.0	352.0	0.6930
32.2	2619.0	388.0	0.6930
33.4	2680.0	434.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
34.2	2716.0	470.0	0.6930
35.0	2764.0	514.0	0.6930
35.9	2822.0	574.0	0.6930
36.5	2867.0	623.0	0.6930
37.0	2906.0	668.0	0.6930
37.4	2939.0	709.0	0.6930
37.8	2980.0	756.0	0.6930
38.0	2997.0	785.0	0.6930
38.2	3018.0	814.0	0.6930
38.3	3024.0	822.0	0.6930
38.4	3034.0	837.0	0.6930
	NOPS= 28	ETA=120.0	
0.0	2343.0	224.0	0.6930
10.0	2343.0	224.0	0.6930
12.0	2345.0	225.0	0.6930
13.8	2347.0	226.0	0.6930
15.8	2351.0	228.0	0.6930
17.5	2360.0	232.0	0.6930
19.5	2368.0	236.0	0.6930
21.0	2379.0	241.0	0.6930
22.5	2391.0	247.0	0.6930
24.0	2406.0	255.0	0.6930
25.7	2427.0	266.0	0.6930
26.9	2449.0	278.0	0.6930
28.5	2489.0	301.0	0.6930
29.9	2529.0	325.0	0.6930
31.0	2570.0	352.0	0.6930
32.2	2619.0	388.0	0.6930
33.4	2680.0	434.0	0.6930
34.2	2716.0	470.0	0.6930
35.0	2764.0	514.0	0.6930
35.9	2822.0	574.0	0.6930
36.5	2867.0	623.0	0.6930
37.0	2906.0	668.0	0.6930
37.4	2939.0	709.0	0.6930
37.8	2980.0	756.0	0.6930
38.0	2997.0	785.0	0.6930
38.2	3018.0	814.0	0.6930
38.3	3024.0	822.0	0.6930
38.4	3034.0	837.0	0.6930
	NOPS= 28	ETA=180.0	
0.0	2343.0	224.0	0.6930
10.0	2343.0	224.0	0.6930
12.0	2345.0	225.0	0.6930
13.8	2347.0	226.0	0.6930
15.8	2351.0	228.0	0.6930
17.5	2360.0	232.0	0.6930
19.5	2368.0	236.0	0.6930
21.0	2379.0	241.0	0.6930
22.5	2391.0	247.0	0.6930
24.0	2406.0	255.0	0.6930
25.7	2427.0	266.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
26.9	2449.0	278.0	0.6930
28.5	2489.0	301.0	0.6930
29.9	2529.0	325.0	0.6930
31.0	2570.0	352.0	0.6930
32.2	2619.0	388.0	0.6930
33.4	2680.0	434.0	0.6930
34.2	2716.0	470.0	0.6930
35.0	2764.0	514.0	0.6930
35.9	2822.0	574.0	0.6930
36.5	2867.0	623.0	0.6930
37.0	2906.0	668.0	0.6930
37.4	2939.0	709.0	0.6930
37.8	2980.0	756.0	0.6930
38.0	2997.0	785.0	0.6930
38.2	3018.0	814.0	0.6930
38.3	3024.0	822.0	0.6930
38.4	3034.0	837.0	0.6930
	Z= 20.0	NET= 7	
	NOPS= 29	ETA= 0.0	
0.0	2343.0	224.0	0.6930
2.9	2328.0	217.0	0.6930
3.7	2317.0	212.0	0.6930
5.0	2296.0	203.0	0.6930
9.1	2232.0	177.0	0.6930
11.1	2206.0	167.0	0.6930
13.5	2184.0	159.0	0.6930
15.9	2182.0	159.0	0.6930
18.3	2187.0	160.0	0.6930
20.4	2197.0	164.0	0.6930
22.9	2217.0	171.0	0.6930
24.9	2244.0	182.0	0.6930
27.2	2295.0	203.0	0.6930
28.9	2350.0	228.0	0.6930
30.6	2428.0	266.0	0.6930
32.1	2547.0	336.0	0.6930
33.7	2772.0	522.0	0.6930
34.8	2681.0	439.0	0.6930
36.5	2538.0	330.0	0.6930
38.2	2377.0	240.0	0.6930
39.7	2229.0	176.0	0.6930
41.7	2039.0	114.0	0.6930
44.1	1804.0	65.0	0.6930
46.1	1622.0	40.0	0.6930
48.6	1404.0	21.0	0.6930
51.3	1200.0	11.0	0.6930
51.5	4110.0	288.0	0.6830
51.9	4420.0	280.0	0.6590
52.5	4495.0	280.0	0.6490
	NOPS= 29	ETA= 10.0	
0.0	2343.0	224.0	0.6930
2.9	2328.0	217.0	0.6930
3.7	2317.0	212.0	0.6930
5.0	2296.0	203.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
9.1	2232.0	177.0	0.6930
11.0	2206.0	167.0	0.6930
13.5	2184.0	159.0	0.6930
15.9	2182.0	159.0	0.6930
18.3	2187.0	160.0	0.6930
20.4	2197.0	164.0	0.6930
22.9	2217.0	171.0	0.6930
24.9	2244.0	182.0	0.6930
27.2	2295.0	203.0	0.6930
28.9	2350.0	228.0	0.6930
30.6	2428.0	266.0	0.6930
32.1	2547.0	336.0	0.6930
33.7	2772.0	522.0	0.6930
34.9	2681.0	439.0	0.6930
36.5	2538.0	330.0	0.6930
38.2	2377.0	240.0	0.6930
39.7	2229.0	176.0	0.6930
41.7	2039.0	114.0	0.6930
44.1	1804.0	65.0	0.6930
46.1	1622.0	40.0	0.6930
48.6	1404.0	21.0	0.6930
52.3	1125.0	8.3	0.6930
52.4	1121.0	8.3	0.6930
52.5	4243.0	269.0	0.6930
53.3	4476.0	264.0	0.6510
	NOPS= 30	ETA= 20.0	
0.0	2343.0	224.0	0.6930
2.9	2328.0	217.0	0.6930
3.7	2317.0	212.0	0.6930
5.0	2296.0	203.0	0.6930
9.1	2232.0	177.0	0.6930
11.1	2206.0	167.0	0.6930
13.5	2184.0	159.0	0.6930
15.9	2182.0	159.0	0.6930
18.3	2187.0	160.0	0.6930
20.4	2197.0	164.0	0.6930
22.9	2217.0	171.0	0.6930
24.9	2244.0	182.0	0.6930
27.2	2295.0	203.0	0.6930
28.9	2350.0	228.0	0.6930
30.6	2428.0	266.0	0.6930
32.1	2547.0	336.0	0.6930
33.7	2772.0	522.0	0.6930
34.9	2681.0	439.0	0.6930
36.5	2538.0	330.0	0.6930
38.2	2377.0	240.0	0.6930
39.7	2229.0	180.0	0.6930
41.7	2039.0	114.0	0.6930
44.1	1804.0	65.0	0.6930
46.1	1622.0	40.0	0.6930
48.6	1404.0	21.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
52.3	1122.0	8.3	0.6930
55.3	1082.0	7.1	0.6930
55.4	4276.0	253.0	0.6720
55.5	4469.0	250.0	0.6500
55.9	4467.0	250.0	0.6500
	NOPS= 29	ETA= 30.0	
0.0	2343.0	224.0	0.6930
2.9	2328.0	217.0	0.6930
3.7	2317.0	212.0	0.6930
5.0	2296.0	203.0	0.6930
9.1	2232.0	177.0	0.6930
11.1	2206.0	167.0	0.6930
13.5	2184.0	159.0	0.6930
15.9	2182.0	159.0	0.6930
18.3	2187.0	160.0	0.6930
20.4	2197.0	164.0	0.6930
22.9	2217.0	171.0	0.6930
24.9	2244.0	182.0	0.6930
27.2	2295.0	203.0	0.6930
28.9	2350.0	228.0	0.6930
30.6	2428.0	266.0	0.6930
32.1	2547.0	336.0	0.6930
33.7	2772.0	522.0	0.6930
34.9	2681.0	439.0	0.6930
36.5	2538.0	330.0	0.6930
38.2	2377.0	240.0	0.6930
39.7	2224.0	180.0	0.6930
41.7	2039.0	114.0	0.6930
44.1	1804.0	65.0	0.6930
46.1	1622.0	40.0	0.6930
48.6	1404.0	21.0	0.6930
52.3	1122.0	8.3	0.6930
55.6	1081.0	7.1	0.6930
58.3	1071.0	6.9	0.6930
58.4	1071.0	6.9	0.6930
	NOPS= 29	ETA= 60.0	
0.0	2343.0	224.0	0.6930
2.9	2328.0	217.0	0.6930
3.7	2317.0	212.0	0.6930
5.0	2296.0	203.0	0.6930
9.1	2232.0	177.0	0.6930
11.1	2206.0	167.0	0.6930
13.5	2184.0	159.0	0.6930
15.9	2182.0	159.0	0.6930
18.3	2187.0	160.0	0.6930
20.4	2197.0	164.0	0.6930
22.9	2217.0	171.0	0.6930
24.9	2244.0	182.0	0.6930
27.2	2295.0	203.0	0.6930
28.9	2350.0	228.0	0.6930
30.6	2428.0	266.0	0.6930
32.1	2547.0	336.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
33.7	2772.0	522.0	0.6930
34.9	2681.0	439.0	0.6930
36.5	2538.0	330.0	0.6930
38.2	2377.0	240.0	0.6930
39.7	2224.0	180.0	0.6930
41.7	2039.0	114.0	0.6930
44.1	1804.0	65.0	0.6930
46.1	1622.0	40.0	0.6930
48.6	1404.0	21.0	0.6930
52.3	1122.0	8.3	0.6930
55.6	1081.0	7.1	0.6930
58.3	1071.0	6.9	0.6930
58.4	1071.0	6.9	0.6930
NOPS= 29		ETA=120.0	
0.0	2343.0	224.0	0.6930
2.9	2328.0	217.0	0.6930
3.7	2317.0	212.0	0.6930
5.0	2296.0	203.0	0.6930
9.1	2232.0	177.0	0.6930
11.1	2206.0	167.0	0.6930
13.5	2184.0	159.0	0.6930
15.9	2182.0	159.0	0.6930
18.3	2187.0	160.0	0.6930
20.4	2197.0	164.0	0.6930
22.9	2217.0	171.0	0.6930
24.9	2244.0	182.0	0.6930
27.2	2295.0	203.0	0.6930
28.9	2350.0	228.0	0.6930
30.6	2428.0	266.0	0.6930
32.1	2547.0	336.0	0.6930
33.7	2772.0	522.0	0.6930
34.9	2681.0	439.0	0.6930
36.5	2538.0	330.0	0.6930
38.2	2377.0	240.0	0.6930
39.7	2224.0	180.0	0.6930
41.7	2039.0	114.0	0.6930
44.1	1804.0	65.0	0.6930
46.1	1622.0	40.0	0.6930
48.6	1404.0	21.0	0.6930
52.3	1122.0	8.3	0.6930
55.6	1081.0	7.1	0.6930
58.3	1071.0	6.9	0.6930
58.4	1071.0	6.9	0.6930
NOPS= 29		ETA=180.0	
0.0	2343.0	224.0	0.6930
2.9	2328.0	217.0	0.6930
3.7	2317.0	212.0	0.6930
5.0	2296.0	203.0	0.6930
9.1	2232.0	177.0	0.6930
11.1	2206.0	167.0	0.6930
13.5	2184.0	159.0	0.6930
15.9	2182.0	159.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
18.3	2187.0	160.0	0.6930
20.4	2197.0	164.0	0.6930
22.9	2217.0	171.0	0.6930
24.9	2244.0	182.0	0.6930
27.2	2295.0	203.0	0.6930
28.9	2350.0	228.0	0.6930
30.6	2428.0	266.0	0.6930
32.1	2547.0	336.0	0.6930
33.7	2772.0	522.0	0.6930
34.9	2681.0	439.0	0.6930
36.5	2538.0	330.0	0.6930
38.2	2377.0	240.0	0.6930
39.7	2224.0	180.0	0.6930
41.7	2039.0	114.0	0.6930
44.1	1804.0	65.0	0.6930
46.1	1622.0	40.0	0.6930
48.6	1404.0	21.0	0.6930
52.3	1122.0	8.3	0.6930
55.6	1081.0	7.1	0.6930
58.3	1071.0	6.9	0.6930
58.4	1071.0	6.9	0.6930
Z= 30.0		NET= 11	
NOPS= 28		ETA= 0.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	143.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1567.0	34.0	0.6930
50.3	1509.0	27.0	0.6930
50.4	1500.0	27.0	0.6930
50.6	3690.0	395.0	0.6900
52.5	4670.0	431.0	0.6350
NOPS= 28		ETA= 10.0	
0.0	2304.0	207.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	143.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1565.0	34.0	0.6930
51.3	1475.0	25.0	0.6930
51.4	3750.0	376.0	0.6890
52.4	4284.0	391.0	0.6720
53.3	4647.0	404.0	0.6370
	NDPS= 29	ETA= 20.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	143.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2166.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.6	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
49.5	1565.0	34.0	0.6930
53.4	1346.0	18.0	0.6930
54.0	1328.0	17.0	0.6930
54.1	4000.0	311.0	0.6870
55.3	4434.0	320.0	0.6600
55.9	4564.0	319.0	0.6430
	NOPS= 30	ETA= 30.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	134.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1565.0	34.0	0.6930
53.4	1344.0	18.0	0.6930
56.6	1181.0	10.0	0.6930
59.0	1089.0	6.7	0.6930
59.1	4119.0	283.0	0.6790
59.9	4433.0	214.0	0.6520
60.7	4429.0	214.0	0.6530
	NOPS= 30	ETA= 35.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	134.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1565.0	34.0	0.6930
53.4	1344.0	18.0	0.6930
56.6	1181.0	10.0	0.6930
60.7	1027.0	5.8	0.6930
63.3	1001.0	5.6	0.6930
63.4	4286.0	210.6	0.6740
64.1	4432.0	207.8	0.6510
	NOPS= 30	ETA= 40.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	134.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1565.0	34.0	0.6930
53.4	1344.0	18.0	0.6930
56.6	1181.0	10.0	0.6930
60.7	1027.0	5.8	0.6930
65.6	1011.0	5.4	0.6930
67.3	1003.0	5.3	0.6930
67.4	4439.0	200.0	0.6530
	NOPS= 29	ETA= 45.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	134.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	138.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1565.0	34.0	0.6930
53.4	1344.0	18.0	0.6930
56.6	1181.0	10.0	0.6930
60.7	1027.0	5.8	0.6930
65.6	1011.0	5.4	0.6930
68.2	1348.0	7.0	0.6930
NOPS= 29		ETA= 60.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	134.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1565.0	34.0	0.6930
53.4	1344.0	18.0	0.6930

APPENDIX A (CONTI.)

R	I	P	F
56.6	1181.0	10.0	0.6930
60.7	1026.0	5.8	0.6930
65.6	1011.0	5.4	0.6930
68.4	1277.0	6.6	0.6930
	NOPS= 29	ETA= 75.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	134.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1565.0	34.0	0.6930
53.4	1344.0	18.0	0.6930
56.6	1181.0	10.0	0.6930
60.7	1027.0	5.8	0.6930
65.6	1011.0	5.4	0.6930
68.4	1003.0	5.3	0.6930
	NOPS= 29	ETA=120.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	134.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1565.0	34.0	0.6930
53.4	1344.0	18.0	0.6930
56.6	1181.0	10.0	0.6930
60.7	1027.0	5.8	0.6930
65.6	1011.0	5.4	0.6930
68.4	1003.0	5.3	0.6930
	NOPS= 29	ETA=180.0	
0.0	2304.0	207.0	0.6930
1.6	2294.0	202.0	0.6930
3.5	2264.0	190.0	0.6930
5.5	2234.0	178.0	0.6930
7.7	2205.0	167.0	0.6930
9.8	2178.0	157.0	0.6930
12.0	2155.0	149.0	0.6930
13.9	2135.0	134.0	0.6930
16.5	2120.0	138.0	0.6930
19.1	2125.0	139.0	0.6930
21.7	2141.0	145.0	0.6930
23.9	2168.0	154.0	0.6930
26.5	2225.0	174.0	0.6930
28.5	2307.0	208.0	0.6930
30.7	2642.0	407.0	0.6930
32.2	2613.0	383.0	0.6930
33.7	2532.0	327.0	0.6930
35.4	2434.0	270.0	0.6930
37.5	2308.0	208.0	0.6930
39.1	2207.0	168.0	0.6930
41.6	2054.0	118.0	0.6930
44.1	1894.0	81.0	0.6930
46.4	1748.0	56.0	0.6930
49.5	1565.0	34.0	0.6930
53.4	1344.0	18.0	0.6930
56.6	1181.0	10.0	0.6930
60.7	1027.0	5.8	0.6930
65.6	1011.0	5.4	0.6930
68.4	1003.0	5.3	0.6930
	Z= 40.0	NET= 12	
	NOPS= 26	ETA= 0.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
48.8	1680.0	46.0	0.6930
49.0	3300.0	424.0	0.6910
50.5	3909.0	435.0	0.6880
52.5	4705.0	469.0	0.6330
	NOPS= 27	ETA= 10.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
50.0	1640.0	41.0	0.6930
50.1	3380.0	406.0	0.6910
50.8	3702.0	413.0	0.6900
52.9	4567.0	454.0	0.6510
53.3	4692.0	450.0	0.6330
	NOPS= 27	ETA= 20.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2093.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
51.5	1564.0	34.0	0.6930
52.9	1500.0	28.0	0.6930
53.0	3513.0	358.0	0.6910
53.9	3960.0	365.0	0.6860
55.9	4649.0	394.0	0.6360
	NOPS= 28	ETA= 30.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2364.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.6	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
51.5	1564.0	34.0	0.6930
54.8	1422.0	23.0	0.6930
58.0	1298.0	15.0	0.6930
58.1	3800.0	272.0	0.6870
58.6	3982.0	277.0	0.6850
60.6	4550.0	291.0	0.6430
	NOPS= 29	ETA= 35.0	
0.0	2193.0	162.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
51.5	1564.0	34.0	0.6930
54.8	1421.0	23.0	0.6930
59.1	1249.0	13.0	0.6930
61.8	1148.0	9.2	0.6930
61.9	3847.0	229.2	0.6870
63.2	4334.0	223.0	0.6620
64.1	4461.0	223.0	0.6490
	NOPS= 30	ETA= 40.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
51.5	1564.0	34.0	0.6930
54.8	1421.0	23.0	0.6930
59.1	1249.0	13.0	0.6930
64.7	1055.0	6.4	0.6930
66.7	1000.0	4.4	0.6930
66.8	4260.0	189.0	0.6680
67.9	4401.0	180.0	0.6530
68.5	4399.0	180.0	0.6530
	NOPS= 30	ETA= 45.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
51.5	1564.0	34.0	0.6930
54.8	1421.0	23.0	0.6930
59.1	1249.0	13.0	0.6930
64.7	1052.0	6.4	0.6930
69.1	967.0	4.5	0.6930
73.5	959.0	4.3	0.6930
73.6	4237.0	175.0	0.6680
73.7	4406.0	173.0	0.6510
	NOPS= 30	ETA= 60.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
51.5	1564.0	34.0	0.6930
54.8	1421.0	23.0	0.6930
59.1	1249.0	13.0	0.6930
64.7	1052.0	6.4	0.6930
73.8	958.0	4.4	0.6930
76.6	950.0	4.2	0.6930
76.7	4257.0	171.0	0.6680
76.9	4410.0	169.0	0.6500
	NOPS= 29	ETA= 75.0	
0.0	2193.0	162.2	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
51.5	1564.0	34.0	0.6930
54.8	1421.0	23.0	0.6930
59.1	1249.0	13.0	0.6930
64.7	1052.0	6.4	0.6930
69.1	967.0	4.5	0.6930
73.8	958.0	4.4	0.6930
78.1	1140.0	4.8	0.6930
	NOPS= 29	ETA= 90.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
51.5	1564.0	34.0	0.6930
54.8	1421.0	23.0	0.6930
59.1	1249.0	13.0	0.6930
64.7	1052.0	6.4	0.6930
69.1	967.0	4.5	0.6930
73.8	958.0	4.4	0.6930
78.4	945.0	4.1	0.6930
	NUPS= 29	ETA=120.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
51.5	1564.0	34.0	0.6930
54.8	1421.0	23.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
59.1	1249.0	13.0	0.6930
64.7	1052.0	6.4	0.6930
69.1	967.0	4.5	0.6930
73.8	958.0	4.4	0.6930
78.4	945.0	4.1	0.6930
	NOPS= 29	ETA=180.0	
0.0	2193.0	162.0	0.6930
1.7	2194.0	162.0	0.6930
4.2	2184.0	159.0	0.6930
6.2	2168.0	154.0	0.6930
8.3	2147.0	147.0	0.6930
9.2	2139.0	144.0	0.6930
12.7	2109.0	134.0	0.6930
14.9	2092.0	129.0	0.6930
16.9	2080.0	126.0	0.6930
19.6	2075.0	124.0	0.6930
22.3	2097.0	131.0	0.6930
24.9	2153.0	146.0	0.6930
27.2	2254.0	186.0	0.6930
29.4	2532.0	327.0	0.6930
31.3	2464.0	286.0	0.6930
33.6	2369.0	236.0	0.6930
35.6	2287.0	199.0	0.6930
37.6	2198.0	164.0	0.6930
39.8	2098.0	131.0	0.6930
42.6	1972.0	97.0	0.6930
44.8	1869.0	76.0	0.6930
48.1	1715.0	52.0	0.6930
51.5	1564.0	34.0	0.6930
54.8	1421.0	23.0	0.6930
59.1	1249.0	13.0	0.6930
64.7	1052.0	6.4	0.6930
69.1	967.0	4.5	0.6930
73.8	958.0	4.4	0.6930
78.4	945.0	4.1	0.6930
	Z= 60.0	NET= 13	
	NOPS= 27	ETA= 0.0	
0.0	2012.0	107.0	0.6930
0.5	2012.0	107.0	0.6930
2.3	2013.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
45.6	1800.0	64.0	0.6930
45.8	2940.0	379.0	0.6930
47.1	3147.0	381.0	0.6930
49.2	3723.0	390.0	0.6900
52.3	4605.0	407.0	0.6430
52.5	4644.0	405.0	0.6380
	NOPS= 27	ETA= 10.0	
0.0	2012.0	107.0	0.6930
0.5	2012.0	107.0	0.6930
2.3	2013.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
46.9	1764.0	59.0	0.6930
47.0	2966.0	370.0	0.6930
47.5	3068.0	373.0	0.6930
49.6	3563.0	380.0	0.6910
52.4	4462.0	400.0	0.6610
53.3	4643.0	400.0	0.6370
	NOPS= 28	ETA= 20.0	
0.0	2012.0	107.0	0.6930
0.5	2012.0	107.0	0.6930
2.3	2013.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
49.9	1658.0	44.0	0.6930
50.0	3118.0	355.0	0.6930
50.8	3216.0	353.0	0.6930
53.3	3954.0	360.0	0.6870
55.7	4603.0	381.0	0.6420
55.9	4633.0	379.0	0.6370
	NOPS= 28	ETA= 30.0	
0.0	2012.0	107.0	0.6930
0.5	2012.0	107.0	0.6930
2.3	2013.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1509.0	29.0	0.6930
55.8	1508.0	29.0	0.6930
55.9	3268.0	309.0	0.6910
57.4	3767.0	311.0	0.6890
60.6	4596.0	327.0	0.6390
	NOPS= 29	ETA= 35.0	
0.0	2012.0	107.0	0.6930
0.5	2012.0	107.0	0.6930
2.3	2013.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1509.0	29.0	0.6930
59.0	1410.0	22.0	0.6930
59.5	1399.0	21.0	0.6930
59.6	3395.0	274.0	0.6900
62.1	4109.0	281.0	0.6790
64.1	4560.0	288.0	0.6410
	NOPS= 30	ETA= 40.0	
0.0	2012.0	107.0	0.6930
0.5	2012.0	107.0	0.6930
2.3	2013.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1504.0	29.0	0.6930
59.0	1407.0	22.0	0.6930
64.3	1268.0	14.0	0.6930
64.5	1260.0	14.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
64.6	3591.0	232.0	0.6890
67.1	4258.0	240.0	0.6690
68.5	4511.0	242.0	0.6440
	NOPS= 30	ETA= 45.0	
0.0	2012.0	107.0	0.6930
2.3	2013.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1504.0	29.0	0.6930
59.0	1407.0	22.0	0.6930
64.3	1265.0	14.0	0.6930
69.7	1131.0	8.6	0.6930
70.5	1117.0	8.1	0.6930
70.6	3793.0	182.1	0.6870
72.8	4233.0	187.1	0.6670
74.2	4438.0	188.0	0.6480
	NOPS= 30	ETA= 60.0	
0.0	2012.0	107.0	0.6930
2.3	2013.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930

APPENDIX A (CONTL.)

R	T	P	F
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1504.0	29.0	0.6930
59.0	1407.0	22.0	0.6930
64.3	1265.0	14.0	0.6930
69.7	1128.0	8.5	0.6930
73.5	1044.0	6.2	0.6930
73.6	3977.0	167.0	0.6870
74.2	4074.0	166.0	0.6760
76.9	4401.0	165.0	0.6510
NOPS= 30		ETA= 75.0	
0.0	2012.0	107.0	0.6930
2.3	2013.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1504.0	29.0	0.6930
59.0	1407.0	22.0	0.6930
64.3	1265.0	14.0	0.6930
69.7	1128.0	8.5	0.6930
75.0	1009.0	5.4	0.6930
83.3	871.0	3.0	0.6930
83.4	4210.0	131.0	0.6670
85.7	4350.0	141.0	0.6540
NOPS= 29		ETA= 90.0	
0.0	2012.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
16.5	2023.0	110.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1504.0	29.0	0.6930
59.0	1407.0	22.0	0.6930
64.3	1265.0	14.0	0.6930
69.7	1128.0	8.5	0.6930
75.0	1009.0	5.4	0.6930
82.0	875.0	3.0	0.6930
89.8	867.0	2.9	0.6930
94.9	858.0	2.8	0.6930
97.9	1582.0	5.3	0.6930
	NOPS= 30	ETA=105.0	
0.0	2012.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1504.0	29.0	0.6930
59.0	1407.0	22.0	0.6930
64.3	1265.0	14.0	0.6930
69.7	1128.0	8.5	0.6930
75.0	1009.0	5.4	0.6930
82.0	875.0	3.0	0.6930
89.8	867.0	2.9	0.6930

APPENDIX A (CONTI.)

R	T	P	F
94.9	858.0	2.8	0.6930
98.4	853.0	2.7	0.6930
	NOPS= 30	ETA=120.0	
0.0	2012.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1504.0	29.0	0.6930
59.0	1407.0	22.0	0.6930
64.3	1265.0	14.0	0.6930
69.7	1128.0	8.5	0.6930
75.0	1009.0	5.4	0.6930
82.0	875.0	3.0	0.6930
89.8	867.0	2.9	0.6930
94.9	858.0	2.8	0.6930
98.4	853.0	2.7	0.6930
	NOPS= 30	ETA=180.0	
0.0	2012.0	107.0	0.6930
5.4	2020.0	109.0	0.6930
6.9	2029.0	111.0	0.6930
8.3	2032.0	112.0	0.6930
9.8	2034.0	113.0	0.6930
11.9	2031.0	112.0	0.6930
12.8	2029.0	111.0	0.6930
16.5	2023.0	110.0	0.6930
18.8	2027.0	111.0	0.6930
21.0	2051.0	117.0	0.6930
22.9	2115.0	136.0	0.6930
25.2	2360.0	232.0	0.6930
27.5	2304.0	207.0	0.6930
30.2	2236.0	178.0	0.6930
32.7	2170.0	154.0	0.6930
35.7	2088.0	128.0	0.6930
38.5	2011.0	107.0	0.6930
42.0	1907.0	84.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
44.9	1821.0	68.0	0.6930
48.0	1729.0	54.0	0.6930
51.4	1629.0	41.0	0.6930
55.7	1504.0	29.0	0.6930
59.0	1407.0	22.0	0.6930
64.3	1265.0	14.0	0.6930
69.7	1128.0	8.5	0.6930
75.0	1009.0	5.4	0.6930
82.0	875.0	3.0	0.6930
89.8	867.0	2.9	0.6930
94.9	858.0	2.8	0.6930
98.4	853.0	2.7	0.6930
	Z= 80.0	NET= 13	
	NOPS= 27	ETA= 0.0	
0.0	1883.0	79.0	0.6930
1.0	1883.0	79.0	0.6930
5.1	1892.0	81.0	0.6930
5.9	1894.0	81.0	0.6930
7.2	1897.0	82.0	0.6930
8.6	1902.0	83.0	0.6930
10.7	1915.0	85.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
41.7	1820.0	67.0	0.6930
41.9	2730.0	319.0	0.6930
43.4	2840.0	324.0	0.6930
45.7	3125.0	325.0	0.6930
48.9	3817.0	329.0	0.6890
52.2	4530.0	339.0	0.6490
52.5	4570.0	338.0	0.6440
	NOPS= 27	ETA= 10.0	
0.0	1883.0	79.0	0.6930
1.0	1883.0	79.0	0.6930
5.1	1892.0	81.0	0.6930
5.9	1894.0	81.0	0.6930
7.2	1897.0	82.0	0.6930
8.6	1902.0	83.0	0.6930
10.7	1915.0	85.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
42.9	1793.0	63.0	0.6930
43.0	2760.0	317.0	0.6930
43.8	2812.0	321.0	0.6930
46.1	3050.0	320.0	0.6930
49.2	3681.0	325.0	0.6890
52.3	4403.0	335.0	0.6630
53.3	4570.0	334.0	0.6430
	NOPS= 27	ETA= 20.0	
0.0	1883.0	79.0	0.6930
1.0	1883.0	79.0	0.6930
5.1	1892.0	81.0	0.6930
5.9	1894.0	81.0	0.6930
7.2	1897.0	82.0	0.6930
8.6	1902.0	83.0	0.6930
10.7	1915.0	85.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1761.0	58.0	0.6930
46.3	1718.0	52.0	0.6930
46.4	2807.0	303.0	0.6930
47.5	2900.0	309.0	0.6930
50.3	3323.0	310.0	0.6920
52.9	3972.0	315.0	0.6850
55.9	4568.0	323.0	0.6430
	NOPS= 28	ETA= 30.0	
0.0	1883.0	79.0	0.6930
1.0	1883.0	79.0	0.6930
5.1	1892.0	81.0	0.6930
5.9	1894.0	81.0	0.6930
7.2	1897.0	82.0	0.6930
8.6	1902.0	83.0	0.6930
10.7	1915.0	85.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930
48.1	1681.0	47.0	0.6930
52.5	1587.0	36.0	0.6930
52.6	2938.0	279.0	0.6930
52.7	2950.0	279.0	0.6930
54.9	3314.0	287.0	0.6920
57.5	3940.0	288.0	0.6860
60.6	4558.0	298.0	0.6420
	NOPS= 29	ETA= 35.0	
0.0	1883.0	79.0	0.6930
1.0	1883.0	79.0	0.6930
5.1	1892.0	81.0	0.6930
5.9	1894.0	81.0	0.6930
7.2	1897.0	82.0	0.6930
8.6	1902.0	83.0	0.6930
10.7	1915.0	85.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930
48.1	1681.0	47.0	0.6930
52.8	1581.0	36.0	0.6930
56.6	1499.0	28.0	0.6930
56.7	3035.0	260.0	0.6930
56.8	3036.0	260.0	0.6930
59.1	3467.0	266.0	0.6910
61.9	4134.0	269.0	0.6770
64.1	4542.0	275.0	0.6420

APPENDIX A (CONTI.)

NOPS= 30 ETA= 40.0

R	T	P	F
0.0	1883.0	79.0	0.6930
1.0	1883.0	79.0	0.6930
5.1	1892.0	81.0	0.6930
5.9	1894.0	81.0	0.6930
7.2	1897.0	82.0	0.6930
8.6	1902.0	83.0	0.6930
10.7	1915.0	85.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930
48.1	1681.0	47.0	0.6930
52.8	1581.0	36.0	0.6930
56.8	1494.0	28.0	0.6930
61.0	1408.0	22.0	0.6930
61.9	1389.0	21.0	0.6930
62.0	3177.0	236.0	0.6930
63.9	3578.0	239.0	0.6900
67.3	4327.0	246.0	0.6640
68.5	4520.0	247.0	0.6430
NOPS= 30		ETA= 45.0	
0.0	1883.0	79.0	0.6930
5.1	1892.0	81.0	0.6930
5.9	1894.0	81.0	0.6930
7.2	1897.0	82.0	0.6930
8.6	1902.0	83.0	0.6930
10.7	1915.0	85.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
48.1	1681.0	47.0	0.6930
52.8	1581.0	36.0	0.6930
56.8	1494.0	28.0	0.6930
61.0	1406.0	22.0	0.6930
65.6	1312.0	16.0	0.6930
68.4	1557.0	13.0	0.6930
68.5	3382.0	202.0	0.6920
69.9	3698.0	204.0	0.6890
72.5	4215.0	210.0	0.6700
74.2	4483.0	211.0	0.6450
	NOPS= 30	ETA= 60.0	
0.0	1883.0	79.0	0.6930
5.1	1892.0	81.0	0.6930
5.9	1894.0	81.0	0.6930
7.2	1897.0	82.0	0.6930
8.6	1902.0	83.0	0.6930
10.7	1915.0	85.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930
48.1	1681.0	47.0	0.6930
52.8	1581.0	36.0	0.6930
56.8	1494.0	28.0	0.6930
61.0	1406.0	22.0	0.6930
65.6	1311.0	16.0	0.6930
71.2	1203.0	11.0	0.6930
71.3	3459.0	187.0	0.6910
71.4	3466.0	187.0	0.6910
73.7	3974.0	191.0	0.6830
76.9	4466.0	196.0	0.6450
	NOPS= 30	ETA= 75.0	
0.0	1883.0	79.0	0.6930
5.9	1894.0	81.0	0.6930
7.2	1897.0	82.0	0.6930
8.6	1902.0	83.0	0.6930
10.7	1915.0	85.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930
48.1	1681.0	47.0	0.6930
52.8	1581.0	36.0	0.6930
56.8	1494.0	28.0	0.6930
61.0	1406.0	22.0	0.6930
65.6	1310.0	16.0	0.6930
71.4	1196.0	11.0	0.6930
76.0	1111.0	8.0	0.6930
80.9	1026.0	6.3	0.6930
81.0	3746.0	143.3	0.6870
82.1	3951.0	142.0	0.6820
85.7	4393.0	157.0	0.6510
	NOPS= 30	ETA= 90.0	
0.0	1883.0	79.0	0.6930
5.9	1894.0	81.0	0.6930
8.6	1902.0	83.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930
48.1	1681.0	47.0	0.6930
52.8	1581.0	36.0	0.6930
56.8	1494.0	28.0	0.6930
61.0	1405.0	22.0	0.6930
65.6	1309.0	16.0	0.6930
71.4	1196.0	11.0	0.6930
76.0	1110.0	8.0	0.6930
83.4	985.0	4.9	0.6930
91.0	870.0	3.0	0.6930
98.2	797.0	2.1	0.6930
102.0	797.0	2.1	0.6930
103.0	4174.0	101.0	0.6700
104.6	4333.0	136.0	0.6550

APPENDIX A (CONTI.)

NOPS= 30 ETA=105.0

R	T	P	F
0.0	1883.0	79.0	0.6930
5.9	1894.0	81.0	0.6930
8.6	1902.0	83.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930
48.1	1681.0	47.0	0.6930
52.8	1581.0	36.0	0.6930
56.8	1494.0	28.0	0.6930
61.0	1405.0	22.0	0.6930
65.6	1309.0	16.0	0.6930
71.4	1196.0	11.0	0.6930
76.0	1110.0	8.0	0.6930
83.4	985.0	4.9	0.6930
91.0	868.0	3.0	0.6930
98.2	797.0	2.1	0.6930
106.7	790.0	2.0	0.6930
115.3	780.0	1.9	0.6930
118.4	775.0	1.9	0.6930
NOPS= 30		ETA=120.0	
0.0	1883.0	79.0	0.6930
5.9	1894.0	81.0	0.6930
8.6	1902.0	83.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930
48.1	1681.0	47.0	0.6930
52.8	1581.0	36.0	0.6930
56.8	1494.0	28.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
61.0	1405.0	22.0	0.6930
65.6	1309.0	16.0	0.6930
71.4	1196.0	11.0	0.6930
76.0	1110.0	8.0	0.6930
83.4	985.0	4.9	0.6930
91.0	868.0	3.0	0.6930
98.2	797.0	2.1	0.6930
106.7	790.0	2.0	0.6930
115.3	780.0	1.9	0.6930
118.4	775.0	1.9	0.6930
	NOPS= 30	ETA=180.0	
0.0	1883.0	79.0	0.6930
5.9	1894.0	81.0	0.6930
8.6	1902.0	83.0	0.6930
12.4	1929.0	88.0	0.6930
14.0	1941.0	91.0	0.6930
15.7	1958.0	94.0	0.6930
17.8	1997.0	103.0	0.6930
18.7	2026.0	111.0	0.6930
20.0	2201.0	165.0	0.6930
20.7	2291.0	201.0	0.6930
21.9	2266.0	190.0	0.6930
25.7	2176.0	156.0	0.6930
30.3	2062.0	121.0	0.6930
33.4	1998.0	104.0	0.6930
37.0	1921.0	86.0	0.6930
40.3	1849.0	73.0	0.6930
44.4	1760.0	58.0	0.6930
48.1	1681.0	47.0	0.6930
52.8	1581.0	36.0	0.6930
56.8	1494.0	28.0	0.6930
61.0	1405.0	22.0	0.6930
65.6	1309.0	16.0	0.6930
71.4	1196.0	11.0	0.6930
76.0	1110.0	8.0	0.6930
83.4	985.0	4.9	0.6930
91.0	868.0	3.0	0.6930
98.2	797.0	2.1	0.6930
106.7	790.0	2.0	0.6930
115.3	780.0	1.9	0.6930
118.4	775.0	1.9	0.6930
	Z= 120.0	NET= 13	
	NOPS= 29	ETA= 0.0	
0.0	1722.0	53.0	0.6930
0.6	1722.0	53.0	0.6930
3.2	1730.0	54.0	0.6930
5.1	1736.0	55.0	0.6930
6.2	1740.0	55.0	0.6930
7.3	1748.0	56.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
14.3	2068.0	122.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
23.5	1971.0	97.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
29.0	1889.0	80.0	0.6930
30.6	1861.0	75.0	0.6930
31.6	1842.0	71.0	0.6930
31.8	2544.0	261.0	0.6930
32.7	2553.0	259.0	0.6930
34.6	2573.0	255.0	0.6930
36.4	2613.0	252.0	0.6930
38.1	2672.0	247.0	0.6930
40.7	2826.0	241.0	0.6930
44.0	3185.0	240.0	0.6930
48.1	3826.0	237.0	0.6880
52.5	4438.0	242.0	0.6540
NOPS= 29		ETA= 10.0	
0.0	1722.0	53.0	0.6930
3.2	1730.0	54.0	0.6930
5.1	1736.0	55.0	0.6930
6.2	1740.0	55.0	0.6930
7.3	1748.0	56.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
14.3	2068.0	122.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
23.5	1971.0	97.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
29.0	1889.0	80.0	0.6930
30.6	1861.0	75.0	0.6930
31.6	1842.0	71.0	0.6930
33.1	1818.0	67.0	0.6930
33.2	2547.0	256.0	0.6930
35.1	2566.0	252.0	0.6930
36.8	2601.0	249.0	0.6930
38.6	2653.0	245.0	0.6930
41.1	2784.0	239.0	0.6930
44.3	3112.0	240.0	0.6930
48.3	3710.0	237.0	0.6890
52.9	4400.0	241.0	0.6580
53.3	4439.0	241.0	0.6540
NOPS= 30		ETA= 20.0	
0.0	1722.0	53.0	0.6930
3.2	1730.0	54.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
5.1	1736.0	55.0	0.6930
6.2	1740.0	55.0	0.6930
7.3	1748.0	56.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
14.3	2068.0	122.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
23.5	1971.0	97.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
29.0	1889.0	80.0	0.6930
30.6	1861.0	75.0	0.6930
31.6	1842.0	71.0	0.6930
33.3	1815.0	67.0	0.6930
36.0	1767.0	59.0	0.6930
37.3	1744.0	56.0	0.6930
37.4	2558.0	241.0	0.6930
38.2	2574.0	241.0	0.6930
39.9	2607.0	237.0	0.6930
42.3	2701.0	234.0	0.6930
45.4	2932.0	232.0	0.6930
49.1	3419.0	233.0	0.6910
52.9	4057.0	231.0	0.6800
55.9	4443.0	235.0	0.6530
	NOPS= 30	ETA= 30.0	
0.0	1722.0	53.0	0.6930
5.1	1736.0	55.0	0.6930
6.2	1740.0	55.0	0.6930
7.3	1748.0	56.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
14.3	2068.0	122.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
23.5	1971.0	97.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
29.0	1889.0	80.0	0.6930
30.6	1861.0	75.0	0.6930
31.6	1842.0	71.0	0.6930
33.3	1814.0	67.0	0.6930
36.0	1765.0	59.0	0.6930
38.7	1721.0	52.0	0.6930
41.3	1676.0	47.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
44.7	1619.0	40.0	0.6930
44.8	2602.0	217.0	0.6930
44.9	2606.0	217.0	0.6930
47.7	2736.0	220.0	0.6930
51.1	3029.0	220.0	0.6930
54.4	3504.0	219.0	0.6910
59.2	4273.0	224.0	0.6670
60.6	4447.0	224.0	0.6510
	NOPS= 30	ETA= 35.0	
0.0	1722.0	53.0	0.6930
5.1	1736.0	55.0	0.6930
6.2	1740.0	55.0	0.6930
7.3	1748.0	56.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
14.3	2068.0	122.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
23.5	1971.0	97.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
29.0	1889.0	80.0	0.6930
30.6	1861.0	75.0	0.6930
31.6	1842.0	71.0	0.6930
33.3	1814.0	67.0	0.6930
36.0	1765.0	59.0	0.6930
38.7	1720.0	52.0	0.6930
41.3	1675.0	46.0	0.6930
45.0	1612.0	39.0	0.6930
49.5	1554.0	33.0	0.6930
49.6	2646.0	207.0	0.6930
49.7	2651.0	207.0	0.6930
52.8	2847.0	207.0	0.6930
55.8	3200.0	211.0	0.6930
60.1	3894.0	211.0	0.6860
64.1	4448.0	216.0	0.6500
	NOPS= 30	ETA= 40.0	
0.0	1722.0	53.0	0.6930
6.2	1740.0	55.0	0.6930
7.3	1748.0	56.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
14.3	2068.0	122.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
23.5	1971.0	97.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
29.0	1889.0	80.0	0.6930
30.6	1861.0	75.0	0.6930
31.6	1842.0	71.0	0.6930
33.3	1814.0	67.0	0.6930
36.0	1765.0	59.0	0.6930
38.7	1720.0	52.0	0.6930
41.3	1674.0	46.0	0.6930
45.0	1612.0	39.0	0.6930
49.8	1544.0	32.0	0.6930
55.1	1472.0	26.0	0.6930
55.2	1468.0	26.0	0.6930
55.3	2713.0	193.0	0.6930
58.1	2934.0	197.0	0.6930
61.7	3419.0	200.0	0.6910
65.6	4060.0	201.0	0.6790
68.5	4446.0	204.0	0.6490
	NOPS= 30	ETA= 45.0	
0.0	1722.0	53.0	0.6930
6.2	1740.0	55.0	0.6930
7.3	1748.0	56.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
14.3	2068.0	122.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
23.5	1971.0	97.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
29.0	1889.0	80.0	0.6930
30.6	1861.0	75.0	0.6930
31.6	1842.0	71.0	0.6930
33.3	1814.0	67.0	0.6930
36.0	1765.0	59.0	0.6930
38.7	1720.0	52.0	0.6930
41.3	1675.0	46.0	0.6930
45.0	1612.0	39.0	0.6930
49.8	1544.0	32.0	0.6930
55.1	1469.0	26.0	0.6930
60.0	1397.0	21.0	0.6930
62.4	1367.0	19.0	0.6930
62.5	2821.0	178.0	0.6930
64.7	3041.0	182.0	0.6930
67.9	3498.0	184.0	0.6910
74.2	4438.0	188.0	0.6480
	NOPS= 30	ETA= 60.0	
0.0	1722.0	53.0	0.6930
6.2	1740.0	55.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
7.3	1748.0	56.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
14.3	2068.0	122.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
23.5	1971.0	97.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
29.0	1889.0	80.0	0.6930
30.6	1861.0	75.0	0.6930
31.6	1842.0	71.0	0.6930
33.3	1814.0	67.0	0.6930
36.0	1765.0	59.0	0.6930
38.7	1720.0	52.0	0.6930
41.3	1675.0	46.0	0.6930
45.0	1612.0	39.0	0.6930
49.8	1544.0	32.0	0.6930
55.1	1465.0	26.0	0.6930
60.0	1397.0	21.0	0.6930
65.8	1323.0	17.0	0.6930
65.9	2890.0	172.0	0.6930
66.0	2912.0	172.0	0.6930
69.1	3311.0	176.0	0.6920
76.9	4432.0	179.0	0.6480
	NOPS= 30	ETA= 75.0	
0.0	1722.0	53.0	0.6930
6.2	1740.0	55.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
23.5	1971.0	97.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
29.0	1889.0	80.0	0.6930
30.6	1861.0	75.0	0.6930
31.6	1842.0	71.0	0.6930
33.3	1814.0	67.0	0.6930
36.0	1765.0	59.0	0.6930
38.7	1720.0	52.0	0.6930
41.3	1675.0	46.0	0.6930
45.0	1612.0	39.0	0.6930
49.8	1544.0	32.0	0.6930
55.1	1465.0	26.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
60.0	1397.0	21.0	0.6930
66.3	1313.0	16.0	0.6930
72.1	1243.0	13.0	0.6930
76.0	1192.0	10.0	0.6930
76.1	3103.0	148.0	0.6930
77.7	3312.0	150.0	0.6930
81.1	3836.0	153.0	0.6880
85.7	4414.0	167.0	0.6510
	NOPS= 30	ETA= 90.0	
0.0	1722.0	53.0	0.6930
6.2	1740.0	55.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
30.6	1861.0	75.0	0.6930
33.3	1814.0	67.0	0.6930
36.0	1765.0	59.0	0.6930
38.7	1720.0	52.0	0.6930
41.3	1675.0	46.0	0.6930
45.0	1612.0	39.0	0.6930
49.8	1544.0	32.0	0.6930
55.1	1465.0	26.0	0.6930
60.0	1397.0	21.0	0.6930
66.3	1313.0	16.0	0.6930
72.1	1240.0	13.0	0.6930
79.3	1149.0	9.1	0.6930
85.4	1076.0	7.0	0.6930
91.9	1001.0	5.2	0.6930
97.4	947.0	4.1	0.6930
97.5	3473.0	98.0	0.6900
98.4	3603.0	100.0	0.6880
103.0	4152.0	104.0	0.6670
105.0	4362.0	145.0	0.6530
	NOPS= 30	ETA=105.0	
0.0	1722.0	53.0	0.6930
6.2	1740.0	55.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
30.6	1861.0	75.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
33.3	1814.0	67.0	0.6930
38.7	1720.0	52.0	0.6930
41.3	1675.0	46.0	0.6930
45.0	1612.0	39.0	0.6930
49.8	1544.0	32.0	0.6930
55.1	1465.0	26.0	0.6930
60.0	1397.0	21.0	0.6930
66.3	1313.0	16.0	0.6930
72.1	1240.0	13.0	0.6930
79.3	1149.0	9.1	0.6930
85.4	1075.0	7.0	0.6930
91.9	1001.0	5.2	0.6930
108.0	830.0	2.5	0.6930
127.0	688.0	1.2	0.6930
145.0	674.0	1.1	0.6930
146.0	673.0	1.1	0.6930
147.0	4154.0	63.0	0.6670
148.0	4326.0	133.0	0.6560
	NUPS= 30	ETA=120.0	
0.0	1722.0	53.0	0.6930
6.2	1740.0	55.0	0.6930
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
30.6	1861.0	75.0	0.6930
33.3	1814.0	67.0	0.6930
38.7	1720.0	52.0	0.6930
41.3	1675.0	46.0	0.6930
45.0	1612.0	39.0	0.6930
49.8	1544.0	32.0	0.6930
55.1	1465.0	26.0	0.6930
60.0	1397.0	21.0	0.6930
66.3	1313.0	16.0	0.6930
72.1	1240.0	13.0	0.6930
79.3	1149.0	9.1	0.6930
85.4	1075.0	7.0	0.6930
91.9	1001.0	5.2	0.6930
99.3	922.0	3.7	0.6930
108.0	830.0	2.5	0.6930
116.0	763.0	1.8	0.6930
127.0	688.0	1.2	0.6930
138.0	681.0	1.1	0.6930
158.0	664.0	1.0	0.6930
	NUPS= 30	ETA=180.0	
0.0	1722.0	53.0	0.6930
6.2	1740.0	55.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
8.8	1760.0	58.0	0.6930
10.0	1787.0	62.0	0.6930
11.3	1869.0	76.0	0.6930
13.1	2062.0	120.0	0.6930
15.1	2059.0	120.0	0.6930
17.8	2029.0	111.0	0.6930
22.1	1981.0	99.0	0.6930
25.4	1945.0	91.0	0.6930
27.9	1907.0	84.0	0.6930
30.6	1861.0	75.0	0.6930
33.3	1814.0	67.0	0.6930
38.7	1720.0	52.0	0.6930
41.3	1675.0	46.0	0.6930
45.0	1612.0	39.0	0.6930
49.8	1544.0	32.0	0.6930
55.1	1465.0	26.0	0.6930
60.0	1397.0	21.0	0.6930
66.3	1313.0	16.0	0.6930
72.1	1240.0	13.0	0.6930
79.3	1149.0	9.1	0.6930
85.4	1075.0	7.0	0.6930
91.9	1001.0	5.2	0.6930
99.3	922.0	3.7	0.6930
108.0	830.0	2.5	0.6930
116.0	763.0	1.8	0.6930
127.0	688.0	1.2	0.6930
138.0	681.0	1.1	0.6930
158.0	664.0	1.0	0.6930
Z= 160.0		NET= 13	
NOPS= 30		ETA= 0.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
19.2	1801.0	64.0	0.6930
19.4	2422.0	215.0	0.6930
20.7	2424.0	215.0	0.6930
22.7	2427.0	214.0	0.6930
24.1	2431.0	213.0	0.6930
27.8	2459.0	213.0	0.6930
29.8	2487.0	213.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
33.6	2571.0	212.0	0.6930
36.6	2707.0	208.0	0.6930
38.2	2803.0	205.0	0.6930
40.7	3004.0	201.0	0.6930
43.4	3294.0	197.0	0.6920
46.3	3645.0	195.0	0.6890
49.3	4017.0	193.0	0.6810
52.5	4339.0	193.0	0.6600
	NOPS= 30	ETA= 10.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.2	1783.0	62.0	0.6930
21.3	1781.0	60.0	0.6930
21.4	2416.0	210.0	0.6930
22.5	2419.0	210.0	0.6930
24.6	2426.0	210.0	0.6930
28.3	2452.0	209.0	0.6930
31.8	2514.0	212.0	0.6930
36.0	2640.0	207.0	0.6930
38.5	2768.0	204.0	0.6930
39.5	2834.0	202.0	0.6930
41.0	2958.0	199.0	0.6930
43.7	3229.0	195.0	0.6930
46.4	3558.0	193.0	0.6900
49.3	3939.0	191.0	0.6850
53.3	4339.0	191.0	0.6600
	NOPS= 30	ETA= 20.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1782.0	61.0	0.6930
23.0	1762.0	58.0	0.6930
24.1	1750.0	57.0	0.6930
25.9	1730.0	54.0	0.6930
26.5	1722.0	53.0	0.6930
26.7	2415.0	199.0	0.6930
27.5	2419.0	199.0	0.6930
31.6	2455.0	201.0	0.6930
34.9	2524.0	205.0	0.6930
38.1	2617.0	201.0	0.6930
40.5	2737.0	197.0	0.6930
44.5	3046.0	191.0	0.6930
47.0	3324.0	189.0	0.6920
54.0	4160.0	185.0	0.6720
55.9	4341.0	185.0	0.6590
	NOPS= 30	ETA= 30.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1780.0	61.0	0.6930
23.0	1760.0	58.0	0.6930
24.1	1748.0	56.0	0.6930
27.9	1706.0	50.0	0.6930
31.2	1676.0	46.0	0.6930
33.9	1650.0	43.0	0.6930
35.0	1641.0	42.0	0.6930
35.1	2440.0	189.0	0.6930
35.8	2452.0	190.0	0.6930
39.6	2516.0	190.0	0.6930
41.9	2583.0	189.0	0.6930
44.1	2673.0	186.0	0.6930
48.7	2998.0	180.0	0.6930
54.6	2670.0	174.0	0.6890
60.6	4347.0	176.0	0.6580
	NOPS= 30	ETA= 35.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1780.0	61.0	0.6930
23.0	1760.0	58.0	0.6930
24.1	1748.0	56.0	0.6930
26.0	1728.0	53.0	0.6930
31.2	1674.0	46.0	0.6930
34.0	1648.0	43.0	0.6930
38.7	1607.0	38.0	0.6930
40.7	1588.0	36.0	0.6930
40.8	2467.0	181.0	0.6930
41.5	2480.0	182.0	0.6930
43.7	2528.0	180.0	0.6930
45.9	2601.0	179.0	0.6930
50.2	2829.0	174.0	0.6930
55.7	3373.0	168.0	0.6910
64.1	4350.0	169.0	0.6570
	NOPS= 30	ETA= 40.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1780.0	61.0	0.6930
23.0	1760.0	58.0	0.6930
24.1	1748.0	56.0	0.6930
27.9	1706.0	50.0	0.6930
34.0	1648.0	43.0	0.6930
38.7	1606.0	38.0	0.6930
43.4	1551.0	33.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
46.8	1509.0	29.0	0.6930
47.0	1505.0	28.0	0.6930
47.1	2503.0	169.0	0.6930
48.2	2528.0	169.0	0.6930
50.3	2595.0	167.0	0.6930
54.4	2813.0	164.0	0.6930
61.7	3572.0	160.0	0.6900
68.5	4355.0	162.0	0.6560
	NOPS= 30	ETA= 45.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1780.0	61.0	0.6930
23.0	1760.0	53.0	0.6930
24.1	1748.0	56.0	0.6930
27.9	1706.0	50.0	0.6930
34.0	1648.0	43.0	0.6930
38.8	1605.0	38.0	0.6930
43.4	1551.0	33.0	0.6930
46.8	1508.0	29.0	0.6930
52.5	1440.0	24.0	0.6930
55.2	1403.0	21.0	0.6930
55.3	2569.0	153.0	0.6930
55.5	2579.0	153.0	0.6930
60.2	2812.0	150.0	0.6930
68.7	3754.0	150.0	0.6870
74.2	4358.0	152.0	0.6550
	NOPS= 30	ETA= 60.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1780.0	61.0	0.6930
23.0	1760.0	58.0	0.6930
26.0	1728.0	53.0	0.6930
31.2	1674.0	46.0	0.6930
36.1	1632.0	41.0	0.6930
42.1	1567.0	34.0	0.6930
45.5	1524.0	30.0	0.6930
49.0	1483.0	27.0	0.6930
55.7	1395.0	21.0	0.6930
58.6	1364.0	19.0	0.6930
58.7	2592.0	146.0	0.6930
58.8	2599.0	146.0	0.6930
65.3	3035.0	146.0	0.6930
74.6	4140.0	148.0	0.6710
76.4	4360.0	148.0	0.6540
	NOPS= 30	ETA= 75.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1780.0	61.0	0.6930
23.0	1760.0	58.0	0.6930
26.0	1728.0	53.0	0.6930
31.2	1674.0	46.0	0.6930
36.1	1632.0	41.0	0.6930
42.1	1567.0	34.0	0.6930
45.5	1524.0	30.0	0.6930
49.0	1482.0	27.0	0.6930
55.8	1395.0	21.0	0.6930
63.9	1299.0	15.0	0.6930
69.8	1245.0	13.0	0.6930
69.9	2705.0	129.0	0.6930
70.0	2710.0	128.0	0.6930
77.7	3457.0	131.0	0.6910
85.7	4361.0	145.0	0.6540
	NOPS= 30	ETA= 90.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
23.0	1760.0	58.0	0.6930
26.0	1728.0	53.0	0.6930
31.2	1674.0	46.0	0.6930
36.1	1632.0	41.0	0.6930
42.1	1567.0	34.0	0.6930
45.5	1524.0	30.0	0.6930
49.0	1482.0	27.0	0.6930
55.8	1395.0	21.0	0.6930
63.9	1299.0	15.0	0.6930
77.2	1171.0	10.0	0.6930
92.4	1040.0	6.1	0.6930
92.6	1038.0	6.0	0.6930
92.7	3046.0	100.0	0.6930
96.5	3474.0	102.0	0.6900
105.0	4361.0	145.0	0.6540
	NOPS= 30	ETA=105.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1780.0	61.0	0.6930
27.9	1706.0	50.0	0.6930
38.8	1605.0	38.0	0.6930
43.4	1551.0	33.0	0.6930
46.8	1508.0	29.0	0.6930
52.5	1438.0	24.0	0.6930
59.1	1355.0	18.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
70.2	1238.0	13.0	0.6930
83.9	1108.0	7.9	0.6930
100.0	969.0	4.5	0.6930
118.0	829.0	2.4	0.6930
137.0	698.0	1.2	0.6930
140.0	682.0	1.2	0.6930
141.0	3909.0	52.0	0.6850
145.0	4158.0	91.0	0.6650
	NOPS= 30	ETA=120.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1780.0	61.0	0.6930
27.9	1706.0	50.0	0.6930
38.8	1605.0	38.0	0.6930
43.4	1551.0	33.0	0.6930
46.8	1508.0	29.0	0.6930
52.5	1438.0	24.0	0.6930
59.1	1355.0	18.0	0.6930
70.2	1238.0	13.0	0.6930
83.9	1108.0	7.9	0.6930
100.0	969.0	4.6	0.6930
118.0	829.0	2.4	0.6930
137.0	698.0	1.2	0.6930
159.0	619.0	0.8	0.6930
185.0	604.0	0.7	0.6930
198.0	594.0	0.7	0.6930
	NOPS= 30	ETA=180.0	
0.0	1700.0	50.0	0.6930
1.2	1707.0	51.0	0.6930
2.5	1787.0	62.0	0.6930
3.4	1802.0	65.0	0.6930
4.8	1826.0	69.0	0.6930
5.7	1842.0	71.0	0.6930
7.2	1867.0	76.0	0.6930
8.2	1884.0	80.0	0.6930
9.6	1915.0	85.0	0.6930
10.0	1947.0	92.0	0.6930
11.2	1925.0	87.0	0.6930
13.2	1891.0	81.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
14.5	1871.0	77.0	0.6930
16.0	1848.0	72.0	0.6930
18.8	1809.0	66.0	0.6930
21.3	1780.0	61.0	0.6930
27.9	1706.0	50.0	0.6930
38.8	1605.0	38.0	0.6930
43.4	1551.0	33.0	0.6930
46.8	1508.0	29.0	0.6930
52.5	1438.0	24.0	0.6930
59.1	1355.0	18.0	0.6930
70.2	1238.0	13.0	0.6930
83.9	1108.0	7.9	0.6930
100.0	969.0	4.6	0.6930
118.0	829.0	2.4	0.6930
137.0	698.0	1.2	0.6930
159.0	619.0	0.8	0.6930
185.0	604.0	0.7	0.6930
198.0	594.0	0.7	0.6930
	Z= 200.0	NET= 13	
	NOPS= 30	ETA= 0.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
3.0	2115.0	136.0	0.6930
4.0	2059.0	120.0	0.6930
4.5	2015.0	108.0	0.6930
4.6	2718.0	376.0	0.6930
4.7	2719.0	377.0	0.6930
5.4	2685.0	355.0	0.6930
5.9	2653.0	335.0	0.6930
6.3	2653.0	336.0	0.6930
6.8	2616.0	313.0	0.6930
7.4	2589.0	297.0	0.6930
8.3	2556.0	279.0	0.6930
10.2	2506.0.	254.0	0.6930
11.5	2482.0	242.0	0.6930
13.2	2455.0	229.0	0.6930
14.6	2444.0	224.0	0.6930
15.5	2455.0	226.0	0.6930
16.5	2442.0	220.0	0.6930
18.3	2428.0	211.0	0.6930
19.4	2421.0	205.0	0.6930
22.2	2415.0	195.0	0.6930
25.8	2431.0	185.0	0.6930
28.4	2466.0	181.0	0.6930
32.0	2559.0	175.0	0.6930
38.0	2854.0	171.0	0.6930
43.1	3335.0	175.0	0.6920
48.4	3931.0	174.0	0.6840
52.5	4293.0	175.0	0.6620
	NOPS= 30	ETA= 10.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
1.8	2177.0	157.0	0.6930
3.0	2115.0	136.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.0	1921.0	86.0	0.6930
7.1	2606.0	304.0	0.6930
7.4	2573.0	284.0	0.6930
8.9	2519.0	257.0	0.6930
9.6	2501.0	148.0	0.6930
10.7	2479.0	238.0	0.6930
12.0	2458.0	228.0	0.6930
13.7	2436.0	218.0	0.6930
15.0	2431.0	215.0	0.6930
15.9	2443.0	219.0	0.6930
16.9	2433.0	214.0	0.6930
17.6	2426.0	210.0	0.6930
18.7	2418.0	205.0	0.6930
21.3	2407.0	195.0	0.6930
23.9	2409.0	186.0	0.6930
27.7	2437.0	179.0	0.6930
30.5	2490.0	175.0	0.6930
35.5	2661.0	170.0	0.6930
40.6	3006.0	171.0	0.6930
46.9	3651.0	172.0	0.6890
51.0	4090.0	171.0	0.6760
53.3	4290.0	172.0	0.6620
	NOPS= 30	ETA= 20.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
3.0	2115.0	136.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
12.1	1749.0	56.0	0.6930
13.3	1727.0	53.0	0.6930
13.4	2406.0	198.0	0.6930
13.7	2400.0	195.0	0.6930
14.5	2391.0	193.0	0.6930
15.3	2385.0	190.0	0.6930
16.6	2381.0	187.0	0.6930
17.4	2403.0	197.0	0.6930
21.2	2388.0	179.0	0.6930
23.9	2383.0	174.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
27.3	2398.0	170.0	0.6930
29.8	2423.0	166.0	0.6930
33.4	2488.0	164.0	0.6930
39.0	2716.0	165.0	0.6930
43.8	3078.0	165.0	0.6930
48.6	3568.0	165.0	0.6930
52.5	4002.0	165.0	0.6900
55.9	4286.0	164.0	0.6800
	NOPS= 30	ETA= 30.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
23.4	1612.0	39.0	0.6930
23.5	2344.0	162.0	0.6930
24.1	2344.0	162.0	0.6930
26.6	2348.0	161.0	0.6930
29.8	2362.0	159.0	0.6930
32.2	2379.0	157.0	0.6930
33.9	2402.0	156.0	0.6930
38.5	2499.0	155.0	0.6930
43.0	2693.0	156.0	0.6930
48.4	3075.0	154.0	0.6930
51.7	3399.0	153.0	0.6910
55.2	3788.0	152.0	0.6870
60.6	4282.0	153.0	0.6610
	NOPS= 30	ETA= 35.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
26.2	1589.0	37.0	0.6930
29.8	1556.0	33.0	0.6930
31.7	1550.0	33.0	0.6930
31.8	2331.0	149.0	0.6930
31.9	2340.0	149.0	0.6930
34.2	2359.0	149.0	0.6930
37.4	2396.0	148.0	0.6930
42.5	2520.0	149.0	0.6930
46.8	2709.0	150.0	0.6930
50.8	2994.0	148.0	0.6930
53.9	3290.0	146.0	0.6930
59.4	3875.0	144.0	0.6850
64.1	4278.0	145.0	0.6610
	NOPS= 30	ETA= 40.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1972.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
24.2	1608.0	38.0	0.6930
28.1	1569.0	34.0	0.6930
36.1	1491.0	28.0	0.6930
37.8	1479.0	27.0	0.6930
37.9	2344.0	138.0	0.6930
38.3	2349.0	138.0	0.6930
46.7	2525.0	143.0	0.6930
54.3	2929.0	141.0	0.6930
57.2	3195.0	138.0	0.6930
60.3	3498.0	137.0	0.6900
63.6	3862.0	136.0	0.6850
67.1	4164.0	136.0	0.6690
68.5	4275.0	135.0	0.6600
	NOPS= 30	ETA= 45.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
26.3	1586.0	36.0	0.6930
29.9	1550.0	33.0	0.6930
34.9	1502.0	29.0	0.6930
38.6	1472.0	26.0	0.6930
45.3	1417.0	22.0	0.6930
46.7	1406.0	21.0	0.6930
46.8	2383.0	130.0	0.6930
47.9	2409.0	131.0	0.6930
54.3	2600.0	134.0	0.6930
56.9	2734.0	133.0	0.6930
62.3	3151.0	130.0	0.6930
68.0	3721.0	127.0	0.8710
74.2	4273.0	126.0	0.6590
	NOPS= 30	ETA= 60.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
24.2	1607.0	38.0	0.6930
28.1	1568.0	34.0	0.6930
32.8	1521.0	30.0	0.6930
36.2	1490.0	28.0	0.6930
41.2	1450.0	25.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
48.7	1391.0	21.0	0.6930
50.5	1385.0	20.0	0.6930
50.6	2404.0	129.0	0.6930
51.2	2420.0	129.0	0.6930
56.6	2594.0	130.0	0.6930
63.4	3011.0	127.0	0.6930
68.8	3534.0	123.0	0.6900
76.9	4276.0	123.0	0.6590
	NOPS= 30	ETA= 75.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
24.2	1607.0	38.0	0.6930
28.1	1568.0	34.0	0.6930
32.8	1521.0	30.0	0.6930
36.2	1490.0	28.0	0.6930
41.2	1450.0	25.0	0.6930
48.7	1390.0	21.0	0.6930
60.6	1299.0	15.0	0.6930
62.7	1284.0	15.0	0.6930
62.8	2491.0	117.0	0.6930
62.9	2497.0	116.0	0.6930
70.1	2867.0	115.0	0.6930
76.1	3387.0	111.0	0.6910
85.7	4285.0	122.0	0.6580
	NOPS= 30	ETA= 90.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
26.3	1586.0	36.0	0.6930
29.9	1550.0	33.0	0.6930
34.9	1501.0	29.0	0.6930
38.7	1471.0	26.0	0.6930
45.3	1416.0	22.0	0.6930
51.8	1374.0	20.0	0.6930
59.0	1312.0	16.0	0.6930
67.5	1239.0	13.0	0.6930
85.2	1081.0	7.1	0.6930
86.3	1074.0	6.9	0.6930
86.4	2714.0	89.0	0.6930
90.1	2960.0	91.0	0.6930
105.0	4308.0	128.0	0.6570
	NOPS= 30	ETA=105.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
28.1	1568.0	34.0	0.6930
32.8	1521.0	30.0	0.6930
41.2	1449.0	25.0	0.6930
48.8	1390.0	21.0	0.6930
60.7	1298.0	15.0	0.6930
65.0	1261.0	14.0	0.6930
79.6	1130.0	8.5	0.6930
93.1	1027.0	5.8	0.6930
131.0	793.0	2.0	0.6930
135.0	768.0	1.8	0.6930
136.0	3353.0	51.0	0.6930
140.0	3669.0	53.0	0.6850
148.0	4279.0	120.0	0.6580
	NOPS= 30	ETA=120.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
29.9	1550.0	33.0	0.6930
38.7	1471.0	26.0	0.6930
51.8	1374.0	20.0	0.6930
63.3	1276.0	14.0	0.6930
75.7	1165.0	9.7	0.6930
85.3	1080.0	7.1	0.6930
102.0	966.0	4.5	0.6930
121.0	847.0	2.7	0.6930
143.0	720.0	1.4	0.6930
166.0	624.0	0.8	0.6930
193.0	568.0	0.6	0.6930
220.0	554.0	0.5	0.6930
234.0	542.0	0.5	0.6930
	NOPS= 30	ETA=180.0	
0.0	2240.0	180.0	0.6930
1.2	2214.0	170.0	0.6930
1.8	2177.0	157.0	0.6930
4.0	2059.0	120.0	0.6930
5.0	2009.0	106.0	0.6930
5.8	1963.0	95.0	0.6930
6.6	1921.0	86.0	0.6930
7.1	1919.0	86.0	0.6930
7.8	1872.0	77.0	0.6930
8.6	1840.0	71.0	0.6930
9.7	1802.0	65.0	0.6930
10.6	1779.0	61.0	0.6930
12.1	1749.0	56.0	0.6930
13.8	1720.0	52.0	0.6930
16.2	1685.0	48.0	0.6930
18.0	1665.0	45.0	0.6930
22.8	1626.0	40.0	0.6930
29.9	1550.0	33.0	0.6930
38.7	1471.0	26.0	0.6930
51.8	1374.0	20.0	0.6930
63.3	1276.0	14.0	0.6930
75.7	1165.0	9.7	0.6930

APPENDIX A (CONTI.)

R	T	P	F
85.3	1080.0	7.1	0.6930
102.0	966.0	4.5	0.6930
121.0	847.0	2.7	0.6930
143.0	720.0	1.4	0.6930
166.0	624.0	0.8	0.6930
193.0	568.0	0.6	0.6930
220.0	554.0	0.5	0.6930
234.0	542.0	0.5	0.6930
	Z= 300.0	NET= 13	
	NOPS= 19	ETA= 0.0	
0.0	2666.0	194.0	0.6930
29.0	2666.0	194.0	0.6930
29.3	2664.0	188.0	0.6930
29.6	2660.0	182.0	0.6930
30.3	2672.0	175.0	0.6930
31.0	2690.0	171.0	0.6930
31.3	2694.0	168.0	0.6930
32.0	2716.0	164.0	0.6930
32.9	2747.0	160.0	0.6930
34.8	2836.0	155.0	0.6930
36.8	2971.0	155.0	0.6930
38.0	3057.0	152.0	0.6930
39.0	3123.0	151.0	0.6930
40.5	3248.0	149.0	0.6920
42.1	3370.0	147.0	0.6910
44.4	3560.0	144.0	0.6900
46.6	3760.0	144.0	0.6870
49.0	3967.0	143.0	0.6810
52.5	4200.0	143.0	0.6670
	NOPS= 21	ETA= 10.0	
0.0	2666.0	194.0	0.6930
26.8	2703.0	231.0	0.6930
28.1	2615.0	189.0	0.6930
28.4	2608.0	182.0	0.6930
28.9	2613.0	178.0	0.6930
29.7	2629.0	172.0	0.6930
30.4	2643.0	168.0	0.6930
30.8	2648.0	165.0	0.6930
31.5	2668.0	161.0	0.6930
32.5	2697.0	157.0	0.6930
34.4	2773.0	152.0	0.6930
36.4	2898.0	152.0	0.6930
37.8	2985.0	149.0	0.6930
38.7	3048.0	148.0	0.6930
40.2	3158.0	145.0	0.6930
41.7	3278.0	143.0	0.6920
44.0	3458.0	141.0	0.6910
46.2	3653.0	140.0	0.6880
48.5	3860.0	139.0	0.6850
53.2	4182.0	139.0	0.6680
53.3	4192.0	139.0	0.6670
	NOPS= 30	ETA= 20.0	
0.0	2666.0	194.0	0.6930
20.1	2544.0	230.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
21.6	2550.0	224.0	0.6930
22.8	2546.0	215.0	0.6930
24.4	2567.0	212.0	0.6930
25.0	2578.0	211.0	0.6930
25.3	2568.0	203.0	0.6930
25.7	2567.0	200.0	0.6930
25.9	2530.0	185.0	0.6930
26.3	2521.0	179.0	0.6930
26.4	2512.0	175.0	0.6930
26.9	2508.0	169.0	0.6930
27.4	2509.0	165.0	0.6930
28.5	2520.0	160.0	0.6930
29.3	2535.0	151.0	0.6930
29.7	2540.0	155.0	0.6930
30.6	2560.0	152.0	0.6930
31.6	2585.0	149.0	0.6930
33.5	2641.0	144.0	0.6930
35.7	2744.0	144.0	0.6930
37.1	2809.0	142.0	0.6930
38.0	2856.0	140.0	0.6930
39.5	2942.0	137.0	0.6930
41.1	3050.0	135.0	0.6930
43.1	3203.0	133.0	0.6930
45.4	3375.0	131.0	0.6910
47.7	2558.0	130.0	0.6890
51.8	3917.0	129.0	0.6840
55.1	4124.0	129.0	0.6710
55.9	4174.0	128.0	0.6670
	NOPS= 30	ETA= 30.0	
0.0	2666.0	194.0	0.6930
13.2	2469.0	204.0	0.6930
14.7	2450.0	195.0	0.6930
16.3	2438.0	189.0	0.6930
18.0	2431.0	183.0	0.6930
19.8	2438.0	182.0	0.6930
21.6	2442.0	178.0	0.6930
23.6	2465.0	179.0	0.6930
24.6	2463.0	174.0	0.6930
25.0	2456.0	169.0	0.6930
25.9	2419.0	153.0	0.6930
27.3	2404.0	143.0	0.6930
28.4	2410.0	139.0	0.6930
29.3	2418.0	137.0	0.6930
30.7	2435.0	133.0	0.6930
31.8	2453.0	132.0	0.6930
33.7	2495.0	129.0	0.6930
35.9	2577.0	131.0	0.6930
37.2	2617.0	129.0	0.6930
38.1	1649.0	128.0	0.6930
39.5	2707.0	126.0	0.6930
40.9	2772.0	124.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
43.0	2885.0	123.0	0.6930
45.0	3009.0	121.0	0.6930
47.1	3158.0	119.0	0.6930
50.9	3443.0	117.0	0.6910
53.8	3676.0	116.0	0.6880
55.8	3844.0	116.0	0.6850
59.5	4093.0	116.0	0.6720
60.6	4157.0	115.0	0.6670
	NOPS= 30	ETA= 35.0	
0.0	2666.0	194.0	0.6930
8.4	2475.0	189.0	0.6930
9.6	2443.0	181.0	0.6930
12.4	2403.0	172.0	0.6930
14.0	2392.0	168.0	0.6930
17.1	2384.0	163.0	0.6930
20.6	2390.0	161.0	0.6930
24.4	2414.0	160.0	0.6930
25.5	2415.0	156.0	0.6930
26.2	2400.0	149.0	0.6930
26.3	2382.0	143.0	0.6930
26.8	2369.0	138.0	0.6930
27.5	2354.0	132.0	0.6930
29.3	2357.0	126.0	0.6930
30.6	2366.0	124.0	0.6930
32.7	2390.0	121.0	0.6930
34.5	2423.0	119.0	0.6930
36.7	2491.0	122.0	0.6930
38.0	2526.0	120.0	0.6930
40.3	2599.0	118.0	0.6930
41.7	2650.0	117.0	0.6930
43.7	2738.0	115.0	0.6930
45.6	2839.0	114.0	0.6930
47.6	2962.0	114.0	0.6930
51.1	3210.0	112.0	0.6930
53.8	3405.0	110.0	0.6910
55.6	3544.0	110.0	0.6890
59.0	3819.0	109.0	0.6850
62.9	4084.0	109.0	0.6720
64.1	4152.0	109.0	0.6670
	NOPS= 30	ETA= 40.0	
0.0	2666.0	194.0	0.6930
4.5	1275.0	14.0	0.6930
5.6	1293.0	15.0	0.6930
6.9	1309.0	16.0	0.6930
8.2	1323.0	17.0	0.6930
9.6	1335.0	17.0	0.6930
10.3	2349.0	120.0	0.6930
11.4	2337.0	125.0	0.6930
12.5	2328.0	128.0	0.6930
13.7	2327.0	132.0	0.6930
15.0	2319.0	133.0	0.6930
17.8	2321.0	137.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
20.9	2333.0	140.0	0.6930
24.4	2358.0	142.0	0.6930
26.6	2376.0	143.0	0.6930
27.7	2367.0	138.0	0.6930
28.0	2347.0	131.0	0.6930
28.7	2316.0	121.0	0.6930
29.6	2305.0	116.0	0.6930
31.8	2308.0	111.0	0.6930
33.2	2318.0	110.0	0.6930
36.1	2354.0	108.0	0.6930
39.5	2435.0	109.0	0.6930
41.7	2492.0	108.0	0.6930
45.0	2602.0	106.0	0.6930
48.7	2764.0	105.0	0.6930
54.4	3132.0	105.0	0.6930
59.1	3479.0	103.0	0.6900
62.4	3749.0	102.0	0.6860
68.5	4150.0	102.0	0.6670
	NOPS= 30	ETA= 45.0	
0.0	2666.0	194.0	0.6930
4.6	1266.0	14.0	0.6930
5.7	1285.0	15.0	0.6930
7.0	1302.0	16.0	0.6930
8.3	1318.0	17.0	0.6930
9.7	1331.0	17.0	0.6930
11.2	1343.0	18.0	0.6930
12.7	1352.0	18.0	0.6930
14.4	1359.0	19.0	0.6930
16.1	1367.0	19.0	0.6930
17.9	1375.0	20.0	0.6930
19.8	1381.0	20.0	0.6930
21.8	1387.0	20.0	0.6930
22.9	2269.0	116.0	0.6930
24.3	2278.0	119.0	0.6930
27.5	2312.0	125.0	0.6930
29.5	2336.0	127.0	0.6930
31.4	2285.0	111.0	0.6930
32.8	2264.0	104.0	0.6930
34.6	2263.0	100.0	0.6930
36.0	2267.0	98.0	0.6930
38.7	2288.0	96.0	0.6930
41.9	2348.0	97.0	0.6930
44.0	2388.0	96.0	0.6930
47.2	2472.0	96.0	0.6930
50.7	2598.0	96.0	0.6930
56.0	2861.0	96.0	0.6930
60.3	3152.0	97.0	0.6930
68.9	3811.0	96.0	0.6850
74.2	4150.0	95.0	0.6660
	NOPS= 30	ETA= 60.0	
0.0	2666.0	194.0	0.6930
4.6	1266.0	14.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
5.7	1285.0	15.0	0.6930
7.0	1302.0	16.0	0.6930
8.3	1318.0	16.0	0.6930
9.7	1331.0	17.0	0.6930
11.2	1343.0	18.0	0.6930
12.7	1352.0	18.0	0.6930
14.4	1359.0	19.0	0.6930
16.1	1367.0	19.0	0.6930
18.0	1374.0	20.0	0.6930
19.9	1381.0	20.0	0.6930
21.9	1385.0	20.0	0.6930
26.1	1391.0	21.0	0.6930
27.5	2274.0	116.0	0.6930
29.0	2293.0	119.0	0.6930
31.0	2319.0	121.0	0.6930
32.0	2311.0	117.0	0.6930
33.0	2257.0	103.0	0.6930
36.0	2244.0	95.0	0.6930
37.4	2248.0	94.0	0.6930
40.1	2270.0	92.0	0.6930
43.2	2324.0	94.0	0.6930
45.2	2357.0	93.0	0.6930
48.4	2427.0	92.0	0.6930
51.8	2538.0	92.0	0.6930
57.0	2771.0	93.0	0.6930
61.1	3024.0	93.0	0.6930
69.1	3625.0	93.0	0.6880
76.9	4157.0	93.0	0.6650
	NOPS= 30	ETA= 75.0	
0.0	2666.0	194.0	0.6930
4.6	1266.0	14.0	0.6930
5.7	1285.0	15.0	0.6930
7.0	1302.0	16.0	0.6930
8.3	1318.0	16.0	0.6930
9.7	1331.0	17.0	0.6930
11.2	1343.0	18.0	0.6930
12.7	1352.0	18.0	0.6930
14.4	1359.0	19.0	0.6930
16.1	1367.0	19.0	0.6930
18.0	1374.0	20.0	0.6930
19.9	1379.0	20.0	0.6930
21.9	1384.0	20.0	0.6930
24.1	1386.0	20.0	0.6930
28.5	1387.0	20.0	0.6930
33.2	1387.0	20.0	0.6930
34.7	1372.0	19.0	0.6930
36.1	1323.0	17.0	0.6930
37.0	1307.0	16.0	0.6930
38.2	1289.0	14.0	0.6930
40.7	1254.0	13.0	0.6930
41.3	2193.0	83.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
42.5	2197.0	82.0	0.6930
45.1	2215.0	81.0	0.6930
47.9	2257.0	83.0	0.6930
52.8	2322.0	82.0	0.6930
60.8	2537.0	81.0	0.6930
71.6	3148.0	84.0	0.6930
79.9	3789.0	86.0	0.6850
85.7	4164.0	92.0	0.6650
	NOPS= 30	ETA= 90.0	
0.0	2666.0	194.0	0.6930
4.6	1266.0	14.0	0.6930
5.7	1285.0	15.0	0.6930
7.0	1302.0	16.0	0.6930
8.3	1318.0	16.0	0.6930
9.7	1331.0	17.0	0.6930
11.2	1343.0	18.0	0.6930
12.7	1352.0	18.0	0.6930
14.4	1359.0	19.0	0.6930
16.1	1367.0	19.0	0.6930
18.0	1374.0	20.0	0.6930
19.9	1379.0	20.0	0.6930
21.9	1384.0	20.0	0.6930
26.2	1388.0	20.0	0.6930
30.8	1385.0	20.0	0.6930
33.9	1381.0	20.0	0.6930
36.1	1334.0	17.0	0.6930
39.3	1265.0	14.0	0.6930
42.1	1239.0	13.0	0.6930
45.5	1211.0	11.0	0.6930
50.8	1197.0	11.0	0.6930
57.8	1153.0	9.3	0.6930
62.9	1124.0	8.4	0.6930
69.5	1091.0	7.4	0.6930
71.0	2300.0	66.0	0.6930
83.4	2726.0	69.0	0.6930
89.6	3117.0	70.0	0.6930
95.5	3542.0	71.0	0.6880
100.0	3896.0	71.0	0.6810
105.0	4193.0	99.0	0.6630
	NOPS= 30	ETA=105.0	
0.0	2666.0	194.0	0.6930
4.6	1266.0	14.0	0.6930
5.7	1285.0	15.0	0.6930
7.0	1302.0	16.0	0.6930
8.3	1318.0	16.0	0.6930
9.7	1331.0	17.0	0.6930
11.2	1343.0	18.0	0.6930
12.7	1352.0	18.0	0.6930
14.4	1359.0	19.0	0.6930
16.1	1367.0	19.0	0.6930
18.0	1374.0	20.0	0.6930
19.9	1379.0	20.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
21.9	1384.0	20.0	0.6930
24.1	1386.0	20.0	0.6930
28.5	1387.0	20.0	0.6930
33.3	1386.0	20.0	0.6930
37.1	1305.0	16.0	0.6930
40.9	1250.0	13.0	0.6930
45.5	1211.0	11.0	0.6930
50.8	1197.0	11.0	0.6930
62.9	1124.0	8.4	0.6930
75.0	1067.0	6.8	0.6930
93.6	987.0	4.9	0.6930
103.0	950.0	4.2	0.6930
112.0	912.0	3.6	0.6930
118.0	884.0	3.1	0.6930
127.0	839.0	2.6	0.6930
128.0	2925.0	48.0	0.6930
136.0	3427.0	48.0	0.6900
148.0	4221.0	105.0	0.6610
	NOPS= 30	ETA=120.0	
0.0	2666.0	194.0	0.6930
4.6	1266.0	14.0	0.6930
5.7	1285.0	15.0	0.6930
7.0	1302.0	16.0	0.6930
8.3	1318.0	16.0	0.6930
9.7	1331.0	17.0	0.6930
11.2	1343.0	18.0	0.6930
12.7	1352.0	18.0	0.6930
14.4	1359.0	19.0	0.6930
16.1	1367.0	19.0	0.6930
18.0	1374.0	20.0	0.6930
26.2	1388.0	20.0	0.6930
30.8	1385.0	20.0	0.6930
37.4	1293.0	15.0	0.6930
44.1	1222.0	12.0	0.6930
52.6	1185.0	10.0	0.6930
62.9	1124.0	8.4	0.6930
74.8	1067.0	6.8	0.6930
81.9	1034.0	6.0	0.6930
93.6	987.0	4.9	0.6930
112.0	912.0	3.6	0.6930
121.0	867.0	2.9	0.6930
133.0	813.0	2.3	0.6930
146.0	750.0	1.6	0.6930
171.0	664.0	1.0	0.6930
201.0	589.0	0.6	0.6930
236.0	527.0	0.4	0.6930
278.0	473.0	0.3	0.6930
282.0	4167.0	93.0	0.6640
287.0	4230.0	107.0	0.6610
	NOPS= 30	ETA=180.0	
0.0	2666.0	194.0	0.6930
4.6	1266.0	14.0	0.6930

APPENDIX A (CONTI.)

R	T	P	F
5.7	1285.0	15.0	0.6930
7.0	1302.0	16.0	0.6930
8.3	1318.0	16.0	0.6930
9.7	1331.0	17.0	0.6930
11.2	1343.0	18.0	0.6930
12.7	1352.0	18.0	0.6930
14.4	1359.0	19.0	0.6930
16.1	1367.0	19.0	0.6930
18.0	1374.0	20.0	0.6930
19.9	1379.0	20.0	0.6930
21.9	1384.0	20.0	0.6930
26.2	1388.0	20.0	0.6930
30.8	1385.0	20.0	0.6930
37.4	1293.0	15.0	0.6930
44.1	1222.0	12.0	0.6930
52.6	1185.0	10.0	0.6930
62.9	1124.0	8.4	0.6930
74.8	1067.0	6.8	0.6930
81.9	1034.0	6.0	0.6930
93.6	987.0	4.9	0.6930
112.0	912.0	3.6	0.6930
121.0	867.0	2.9	0.6930
133.0	813.0	2.3	0.6930
146.0	750.0	1.6	0.6930
171.0	664.0	1.0	0.6930
201.0	589.0	0.6	0.6930
236.0	527.0	0.4	0.6930
338.0	527.0	0.4	0.6930

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